OCCUPATIONAL SURVEY REPORT

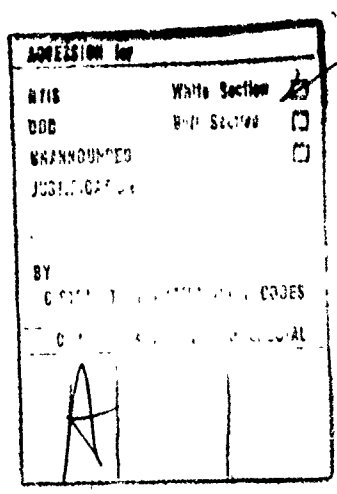
INSTRUMENTATION MECHANIC/TECHNICIAN CAREER LADDER AFSCs 31730, 31750, 31770, AND 31790 (WILL BE CHANGED TO 316X3 ON 30 APRIL 1976).

AFPT-90-317-178

30 APRIL 1976

OCCUPATIONAL SURVEY BRANCH
USAF OCCUPATIONAL MEASUREMENT CENTER
LACKLAND AFB TEXAS 78236

TABLE OF CONTENTS



PREFACE

This report presents the results of a detailed Air Force Occupational Survey of the Instrumentation Mechanic/Technician career ladder, AFSC's 31730, 31750, 31770, and 31790. The project was directed by USAF Program Technical Training, Volume 2, dated October 1974. Authority for conducting specialty surveys is contained in AFM 35-2, paragraph 2-1. Computer outputs from which this report was produced are available for use by operating and training officials.

The survey instrument was developed by Mr. Hendrick W. Ruck, Inventory Development Specialist. Major Thomas J. O'Connor and Mr. James B. Keeth analyzed the survey data and wrote the final report. This report has been reviewed and approved by Major Thomas J. O'Connor, Chief, Operations/Support Career Ladders Analysis Section, Occupational Survey Branch, USAF Occupational Measurement Center, Lackland AFB, Texas, 78236.

Computer programs for analyzing the occupational data were designed by Dr. Raymond E. Christal, Occupational and Manpower Research Division, Air Force Human Resources Laboratory (AFHRL), and were written by the Project Analysis and Programming Branch, Computational Sciences Division, AFHRL.

Because volume reproduction of this report is not feasible, distribution is made on a loan basis to air staff sections and major commands upon request to the USAF Occupational Measurement Center, attention of the Chief, Occupational Survey Branch (OMY), Lackland AFB, Texas 78236.

This report has been reviewed and is approved.

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SUMMARY OF RESULTS

1. Career Ladder Structure: Twenty-five job groups were identified within the 317X0 career ladder and are described in the CAREER LADDER STRUCTURE section of this report. Basically, these groups broke out by general instrumentation and by specific areas such as video, aircraft, satellite, and laboratory instrumentation. Detailed descriptions of these groups are also contained in Appendix A.

2. Career Ladder Input: Personnel are primarily assigned to the career ladder upon completion of technical training. However, many of the 7- and 9-skill level incumbents retrained into the career field or were converted from other AFSs.

3. Job Satisfaction: Approximately 78 percent of the survey respondents found their job interesting. This percentage compares to 69 percent for other Air Force incumbents surveyed during 1975. While a majority of the respondents also felt that their training was being used at least fairly well, a fairly high percent of the total group (40 percent) indicated that their training was being used very little or not at all.

4. Reenlistment Rates: The reenlistment rate for first term airmen was 60 percent for FY 75, as compared to the Air Force average of 40 percent. Second term and career reenlistments were also above Air Force averages.

5. Skill and AFMS Patterns: Overall, instrumentation personnel were performing the duties described in the AFM 39-1 specialty descriptions. Technical task performance was generally stable across skill groups and AFMS groups in terms of percent time spent. The major areas where noticeable changes occurred were in performing general repair functions and in inspecting and maintaining installed instrumentation systems.

6. Task Difficulty: The five most difficult tasks were technical tasks dealing with laser technology. Of those tasks rated above average in difficulty, most were related to the design, isolation, or analysis of electronic items. Of those tasks rated below average, most were related to general repair functions.

7. Specialty Training Standard: All paragraphs evaluated were found to be generally supported by the survey data. Only paragraph 23, covering standard test equipment, was found to contain discrepancies based on task performance data. (See COMPARISON OF SPECIALTY TRAINING STANDARD (STS) TO SURVEY DATA section of this report.)

8. Relevance of Training: The basic instrumentation mechanic course 3ABR31730 was evaluated and all blocks of training were generally supported by the survey data. This assumption was based on a criterion of 10 percent or more members performing those tasks related to each specific block of training. The 10 percent figure was used because very few tasks are performed by more than 30 percent of career ladder members.

OCCUPATIONAL SURVEY REPORT
INSTRUMENTATION MECHANIC/TECHNICIAN CAREER LADDER
AFSCs 31730, 31750, 31770, and 31790

INTRODUCTION

This is a report of an occupational survey of the Instrumentation Mechanic/Technician career ladder, AFS 31730, 31750, 31770, and 31790 conducted by the Occupational Survey Branch, USAF Occupational Measurement Center, from January 1975 through February 1976.

The report describes: (1) development and administration of the survey instrument; (2) summaries of tasks performed by airmen grouped by skill level, experience level, and similarity of tasks performed; (3) comparisons with current training and career field structure documents; and (4) recommended actions for further study.

INVENTORY DEVELOPMENT AND ADMINISTRATION

The data collection instrument for the occupational survey was USAF Job Inventory AFPT 90-317-178. The inventory booklet was composed of two parts: a background information section in which job incumbents provided information about themselves; and a duty-task list section which assessed the relative amount of time spent on tasks performed in their current jobs. The latter section consisted of 715 tasks grouped under 22 headings. Thorough research of publications and directives, personal interviews with 34 subject-matter specialists at two bases, and written reviews from 55 experienced instrumentation mechanic/technicians contributed to the development of the survey instrument.

Consolidated base personnel offices in operational units worldwide received the inventory booklets for administration to 1,360 job incumbents holding the DAFSCs identified above. Survey administration occurred during May 1975 through August 1975 based upon the May 1975 Uniform Airman Record. Table 1 gives the distribution of assigned personnel in the career ladder as of May 1975 and the percentage, by major command, of inventory booklets returned from the field. This return rate was 57 percent of career field members surveyed and represents an adequate sample of the 317X0 career field population.

After supplying identification and biographical information, incumbents checked and rated the tasks performed in their current job. Tasks were rated on a 9-point scale showing relative time spent on each task compared to all other tasks performed in the current job. The ratings ranged from 1 (very-small-amount time spent) through 5 (about-average time spent) to 9 (very-large-amount time spent). Respondents did not rate tasks not performed in their current job.

In the development of the survey instrument, every effort was made to include all duties and tasks important to the accuracy and completeness of the survey. However, due to the possibility of omitting one or more important duties or tasks, instructions for completing the inventory urged respondents to write in any duties or tasks not listed. In this survey there were no significant write-in tasks.

TABLE 1

COMMAND REPRESENTATION OF SURVEY SAMPLE

COMMAND	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
AFSC	72	74
SAC	12	12
ATC	6	5
AFLC	5	4
ADC	4	4
OTHER	1	1

SUMMARY OF BACKGROUND INFORMATION

Method of Assignment To Career Ladder

Examination of the survey data relating to how incumbents were assigned to the 317X0 career ladder reveals several interesting facts. As shown in Table 2, most of the incumbents in the total sample (75 percent) completed a technical training course. However, when this data is broken down by skill groups, it is seen that most of the 5-skill level incumbents (90 percent) completed a basic technical training course, while less than half of the 7- and 9-skill level incumbents (49 and 42 percent respectively) were assigned via the technical training route. Of these higher grade incumbents, a large percentage of the 7-skill levels were retrained from another AFS, while many of the 9-skill levels were converted from another AFS.

Relative Job Interest

In comparison to job interest of personnel in 35 career ladders surveyed in 1975, shown in Table 3, DAFSC 317X0 job incumbents show a much higher interest in their work. Seventy-eight percent of the respondents in the survey sample indicated finding their jobs interesting. This compares to 69 percent for the 35 career ladder sample. Within the career ladder, there is an upward progression in positive job interest as incumbents progress to the 7-skill level. However, at this point, job interest seems to level off, as indicated by the fact that 85 percent of both the 7- and 9-level groups found the job interesting. Table 4 depicts a similar upward trend in job interest among personnel by AFMS groups. The range is from 69 percent showing positive job interest among survey respondents in their first enlistment to a high of 90 percent reporting positive job interest for job incumbents in their third enlistment period. Most of the later enlistment groups show a range between 80 and 84 percent expressing positive job interest.

Perceived Utilization of Talents and Training

Tables 5 and 6 display data on how the incumbents surveyed perceived the use of their talents across skill groups and enlistment groups. Twenty-two percent of the total sample felt their talents were being used very little or not at all. This trend is primarily reflected by lower skill groups, with 29 percent of 5-skill level personnel expressing negative feelings as opposed to only 14 percent of the 7-skill level incumbents and six percent of the 9-skill level incumbents. As for trends across enlistment groups, those incumbents in their first enlistment showed a larger negative perception concerning use of their talents (31 percent) as compared to ten percent for those in their third enlistment period.

Perceived utilization of training as expressed by DAFSC and AFMS groups is shown in Tables 7 and 8. As with job satisfaction and perceived utilization of talents, there is an upward trend in positive feelings as skill level and experience level increases, with the peak being reached during the third enlistment period. However, the number of incumbents in the total sample expressing very little or no use at all of their training is quite high, with 40 percent expressing this opinion. As with utilization of talents, most of this negative perception occurs at the lower skill level groups (as shown by 49 percent of the 5-skill levels expressing a negative opinion as opposed to only 29 percent of the 7-skill level personnel) and with those incumbents in their first and second enlistment periods (48 percent for first enlistment personnel and 51 percent for second enlistment incumbents). Again, a sharp drop occurs after the second enlistment period, with only 28 percent of the incumbents in their third enlistment period perceiving that their training is being utilized very little or not at all.

Reenlistment Intentions

The expressed intentions toward reenlistment among survey respondents are detailed in Table 9. As usual, personnel in their first enlistment expressed the lowest amount (41 percent) of responses indicating they would definitely reenlist or were uncertain but probably would reenlist. When compared against actual reenlistment rates for first term airmen during FY 75 (see Table 10), the percent reenlisting is much higher (60 percent). In terms of second term personnel, expressed intentions to "reenlist" or "probably would reenlist" are only slightly lower than the actual reenlistment rate (71 percent versus an actual rate of 79.6 percent).

TABLE 2

METHOD OF ASSIGNMENT TO CAREER LADDER
(PERCENT MEMBERS RESPONDING)

	TOTAL SAMPLE	5-LEVEL	7-LEVEL	9-LEVEL
COMPLETED TECH TRAINING	75	90	49	42
RETRAINED FROM ANOTHER AFS	14	6	30	21
CONVERTED FROM ANOTHER AFS	5	-	12	30
REENLISTED AFTER PRIOR USAF SERVICE, OR FROM ANOTHER BRANCH OF SERVICE	3	2	5	3
RECLASSIFIED W/O TECHNICAL TRAINING	1	-	2	3
DDA WITHOUT BYPASS TEST	1	1	1	-
DDA WITH BYPASS TEST	-	-	-	-
NOT REPORTED	1	1	1	1

TABLE 3

JOB INTEREST BY DAFSC GROUPS
(PERCENT MEMBERS RESPONDING)

I FIND MY JOB:	TOTAL SAMPLE (N=777)	DAFSC 31750 (N=438)	DAFSC 31770 (N=257)	DAFSC 31790 (N=33)	OTHER AF SPECIALTIES* (N=21,107)
INTERESTING	78	73	85	85	69
SO-SO	12	13	9	12	15
DULL	10	14	7	0	16

* Based on 35 career ladders surveyed during 1975.

TABLE 4

JOB INTEREST BY AFMS GROUPS
(PERCENT MEMBERS RESPONDING)

	ENLISTMENT GROUPS					
I FIND MY JOB:	1st (N=315)	2nd (N=139)	3rd (N=101)	4th (N=56)	5th (N=86)	6th (N=85)
INTERESTING	69	83	90	82	84	80
SO-SO	16	9	8	9	9	9
DULL	14	8	2	9	7	7
NO REPLY	1	-	-	-	-	4

TABLE 5

PERCEIVED UTILIZATION OF TALENTS BY DAFSC GROUPS
(PERCENT MEMBERS RESPONDING)

MY JOB UTILIZES MY TALENTS:	TOTAL SAMPLE (N=777)	DAFSC 31750 (N=438)	DAFSC 31770 (N=257)	DAFSC 31790 (N=33)
PERFECTLY TO EXCELLENTLY	13	6	21	36
VERY WELL TO FAIRLY WELL	65	63	65	58
VERY LITTLE OR NOT AT ALL	22	29	14	6

TABLE 6

PERCEIVED UTILIZATION OF TALENTS BY AFMS GROUPS
(PERCENT MEMBERS RESPONDING)

	ENLISTMENT GROUPS					
MY JOB UTILIZES MY TALENTS:	1st (N=315)	2nd (N=139)	3rd (N=101)	4th (N=56)	5th (N=86)	6th (N=85)
PERFECTLY TO EXCELLENTLY	5	11	15	19	24	25
VERY WELL TO FAIRLY WELL	53	70	75	60	62	59
VERY LITTLE OR NOT AT ALL	31	19	10	21	14	16
NO REPLY	1	-	-	-	-	-

TABLE 7

PERCEIVED UTILIZATION OF TRAINING BY DAFSC GROUPS
(PERCENT MEMBERS RESPONDING)

MY JOB UTILIZES MY TRAINING:	TOTAL SAMPLE (N=777)	DAFSC 31750 (N=438)	DAFSC 31770 (N=257)	DAFSC 31790 (N=33)
PERFECTLY TO EXCELLENTLY	8	5	13	21
VERY WELL TO FAIRLY WELL	52	56	58	64
VERY LITTLE OR NOT AT ALL	40	49	29	15

TABLE 8

PERCEIVED UTILIZATION OF TRAINING BY AFMS GROUPS
(PERCENT MEMBERS RESPONDING)

	ENLISTMENT GROUPS					
MY JOB UTILIZES MY TRAINING:	1st (N=315)	2nd (N=139)	3rd (N=101)	4th (N=56)	5th (N=86)	6th (N=85)
PERFECTLY TO EXCELLENTLY	3	6	8	15	16	17
VERY WELL TO FAIRLY WELL	49	43	64	61	54	56
VERY LITTLE OR NOT AT ALL	48	51	28	24	30	27

TABLE 9

REENLISTMENT INTENTIONS OF SURVEY SAMPLE
(PERCENT RESPONDING)

	1st TERM	2nd TERM	CAREER
NO OR PROBABLY NO	59	29	20
YES OR PROBABLY YES	41	71	80

TABLE 10

ACTUAL REENLISTMENTS FOR 317X0 PERSONNEL
(JULY 1974 - JUNE 1975)

	1st TERM	2nd TERM	CAREER
ELIGIBLE TO REENLIST	128	54	177
NUMBER ACTUALLY REENLISTED	77	43	172
REENLISTMENT RATE	60.2%	79.6%	97.2%

CAREER LADDER STRUCTURE

The job structure of the Instrumentation Mechanic/Technician career ladder was determined on the basis of similarity of the tasks performed and percent time spent on the tasks by incumbents in the field, independent of AFSC or other background factors. The products of the computerized hierarchical grouping procedure used in this part of the analysis helped identify: (1) tasks which tend to be performed by the same incumbents; (2) the breadth or narrowness of jobs performed in the field; and (3) tasks and background characteristics used in distinguishing among different jobs within the career field. Structure analysis, therefore, provided an objective indication of the amount of task overlap among the various groups of incumbents included in the survey sample.

Based on task overlap, the best division among jobs performed by the 782 incumbents included in the structure analysis is illustrated in Figure 1. Represented in the cluster diagram are cluster groups and independent job type groups. Descriptive titles corresponding to the group numbers in Figure 1 are listed below. Clusters are made up of two or more job type groups that are similar to each other in some respect. Tasks performed by members of each cluster group are generally broad in scope, while tasks performed by job type groups within the clusters are relatively narrow and highly related. The independent job type groups perform tasks which do not overlap to a significant degree with any other job type groups.

The following job groups were identified for the 317X0 respondents:

GRP079 - Instrumentation Maintenance Specialist (N=25)
GRP205 - Laboratory Instrumentation Mechanic (N=64)
GRP225 - Instrumentation Mechanic (N=9)
GRP178 - Laboratory Instrumentation Specialist (N=5)
GRP210 - General Instrumentation Technician (N=8)
GRP258 - Video Instrumentation Technician (N=8)
GRP238 - Instrumentation Testing Technician (N=21)
GRP269 - General Test Projects Technician (N=78)
GRP212 - Recorder Calibration Technician (N=16)
GRP310 - Processing Technician (N=7)
GRP148 - Aircraft Instrumentation Specialist (N=16)
GRP105 - Ordnance and Guidance Test Specialist (N=28)
GRP100 - Recording Instrumentation Specialist (N=21)
GRP297 - Test Range Communications Technician (N=17)
GRP410 - Satellite Recovery Specialist (N=6)
GRP201 - Satellite Components Mechanic (N=55)
GRP052 - Satellite Tracking Technician (N=49)
GRP039 - Supply and Procurement Specialist (N=22)
GRP117 - Laser Specialist (N=9)
GRP045 - Missile Support Technician (N=25)
GRP089 - Supervisor (N=72)
GRP071 - Training Specialist (N=23)

GRP065 - Construction Equipment Operator (N=14)
GRP032 - Satellite Data Technician (N=35)
GRP185 - Maintenance Control Specialist (N=5)

A summary of representative tasks and background information for all reported job groups can be found in Appendix A.

Eighty-three percent of the incumbents in the sample were noted to perform jobs roughly equivalent to those described in the groups listed above. The remaining 17 percent of the sample included members whose jobs were not associated with any of these major divisions of the career ladder. These "isolates" were found to represent commands and AFSC's fairly equally, and to share no single common characteristic.

GRP079 Instrumentation Maintenance Specialist

These 25 members are primarily 5-skill level incumbents assigned to SAC. All are located within the CONUS. Most of their work is related to blackbox type maintenance, such as removing or installing transducers, removing or replacing major electronic boxes, isolating malfunctions in systems, and performing maintenance inspections.

GRP205 Laboratory Instrumentation Mechanic

These 64 incumbents are primarily 5-skill level personnel assigned to various laboratories within AFSC. Ninety-four percent are located within the CONUS. These members primarily work at the component level and perform such tasks as construct circuits; test basic electronic components; and construct mounting frames for instrumentation systems.

GRP225 Instrumentation Mechanic

These nine members are all assigned to AFSC and are all located within the CONUS. Eighty-nine percent possess the 5-skill level. Common tasks performed include those which involve installing instrumentation cables and communications cables. Soldering tasks take up about ten percent of their job time.

GRP178 Laboratory Instrumentation Specialist

This group of five incumbents are all assigned to AFSC and are located within CONUS. Sixty percent possess the 5-skill level. These members are involved in research laboratory work dealing with aircraft instrumentation and components testing. Common tasks performed involve the design and testing of circuits.

GRP210 General Instrumentation Technician

The eight incumbents of this group possess an E prefix (Development Technician). All are assigned to AFSC units within the CONUS. Most of the members are 7-skill level personnel who were directly converted or cross-trained into the career ladder. Their most time consuming tasks involve supervising 31730 personnel. They perform a wide variety of tasks, ranging from training to performing repair functions to performing supply actions.

GRP258 Video Instrumentation Technician

This group of eight incumbents are 5- and 7-skill level members which are assigned to AFSC units within the CONUS. Common tasks performed by these members are related to video instrumentation such as video magnetic tape recorders and television equipment.

GRP238 Instrumentation Testing Technician

These 21 incumbents are assigned to AFSC (95 percent) and AFLC (five percent). All members possess either a 5- or 7-skill level and are all located within the CONUS. Many of their tasks are related to testing instrumentation. Typical tasks include analyzing test requirements to determine the support needed; installing instrumentation cables; and monitoring data collecting systems.

GRP269 General Test Projects Technician

These 78 incumbents are primarily assigned to AFSC. Most possess the 5- or 7-skill level. The average number of tasks performed by these members is higher than other groups, averaging 189 tasks. Most of their tasks involve the testing of components, guidance systems, missiles, and aircraft.

GRP212 Recorder Calibration Technician

These 16 members are 5- and 7-skill level personnel assigned to ADC (37 percent), AFSC (32 percent), and ATC (31 percent). They perform an average of 204 tasks, which is considerably higher than the overall average of 81 tasks for all 317X0 personnel. The most time consuming tasks performed by members of this group involve inspecting and maintaining installed instrumentation systems. Typical tasks are: calibrate and operate data collecting systems, such as oscillographs; perform operational checks on magnetic tape and light beam recorders; and test basic components, such as transistors.

GRP310 Processing Technician

These seven members are primarily 5-skill level personnel assigned to AFSC. Most members expressed the opinion that their jobs were fairly interesting but felt their training was being utilized very little. At least five percent of their job time is spent on tasks related to assembling, aligning, or isolating malfunctions on capacitor banks. Members also monitor and perform operational checks on oscillographs and photographic systems, as well as process and develop film.

GRP148 Aircraft Instrumentation Specialist

These 16 members assigned to AFSC indicate that their job is very interesting but feel their training is being utilized very little. Most possess the 5- or 7-skill level. About half of the members have an A (aircrew) prefix. Major areas of testing for this group include rocket sled and aircraft instrumentation.

GRP105 Ordnance and Guidance Test Specialist

This group of 28 incumbents are primarily assigned to AFLC (61 percent) and AFSC (36 percent). Members perceive that their training is being utilized very little in the performance of their jobs. Common tasks performed include the detonation of ordnance, splicing cables, researching test directives, and determining testing methods. They perform very few tasks which involve hands-on maintenance with basic electronic components.

GRP100 Recording Instrumentation Specialist

These 21 incumbents are assigned primarily to AFSC (71 percent), AFLC (10 percent), and SAC (nine percent). They primarily possess the 3- or 5-skill level. Thirty percent of the members work in the nuclear blast simulation area, with the rest working in various miscellaneous areas. Most of their tasks involve working with amplifiers, sensors, and recorders.

GRP297 Test Range Communications Technician

This group of 17 incumbents are primarily 5-skill level personnel assigned to AFSC. Most of their tasks are related to inspecting, maintaining, and performing general repair functions on UHF and VHF receivers.

GRP410 Satellite Recovery Specialist

These six incumbents are all 5-skill level personnel assigned to AFSC units overseas. Most have an A prefix (aircrew). While members find their overall job at least fairly interesting, most feel that their training is

being utilized very little. Typical tasks include: calibrating or adjusting magnetic data tape recorders; soldering components; and aligning electronic systems, such as oscillators and amplifiers.

GRP201 Satellite Components Mechanic

This group of 55 incumbents are assigned to AFSC (89 percent) and ADC (11 percent). Most of the members possess the 5-skill level (76 percent). The average number of tasks performed is 85. Their most time consuming task is operating ground stations during orbital vehicle passes. Members work at the electronic component and black box level and perform such tasks as testing transistors, resistors, capacitors and diodes. They isolate equipment malfunctions and perform alignment tasks. Sixty-two percent of the members perform ground station missile countdown checklist functions.

GRP052 Satellite Tracking Technician

These 49 members are 5- and 7-skill level personnel who work with antenna systems which receive, track, or transmit during missile or satellite operations. Most are assigned to AFSC (86 percent) and are located within the CONUS (91 percent). Half the members possess the A prefix (aircrew). Typical tasks include: operating airborne stations during missile launches and orbital vehicle passes; performing operational checks on communications equipment (UHF and VHF receivers and transmitters); and performing general repair functions on tracking systems.

GRP039 Supply and Procurement Specialist

These 22 incumbents are primarily 5- and 7-skill level members assigned to AFSC, AFLC, ADC, SAC, and USAFA. Most are located within the CONUS. More than 80 percent of their job time is spent working with forms, records, or reports dealing with supply and procurement actions. Typical tasks include inventorying supplies, scheduling equipment for various uses, coordinating the supply flow, and initiating custodian request/receipt forms. The average number of tasks performed is 52 and personnel generally find their work fairly interesting.

GRP117 Laser Specialist

The nine members comprising this group are primarily 5- and 7-skill level personnel assigned to AFSC. All are located within the CONUS. Most report a very interesting job but perceive that their training is being utilized very little. Most of their tasks are related to laser activities.

GRP045 Missile Support Technician

The 25 members of this group are primarily SAC incumbents who possess the 5-skill level. All are located within the CONUS. Most members expressed a so-so to extremely dull job interest, and felt that their training was being utilized very little. A relatively large percent of their job time is spent on routine housekeeping functions and such tasks as removing or treating corrosion on site facilities. Very little work is done in testing resistors, capacitors, etc.

GRP089 Supervisor

The 72 members of this group are primarily 7- and 9-skill level personnel assigned to various commands within the CONUS. Most of their time is spent on supervisory tasks.

GRP071 Training Specialist

Most of these 23 incumbents are assigned to ATC and possess the 5- or 7-skill level. All are within the CONUS, and spend most of their time performing training tasks.

GRP065 Construction Equipment Operator

This group of 14 incumbents are all assigned to AFSC and all have a DAFSC of 31750. They report a fairly interesting job satisfaction but state that their training is utilized very little. This group differs from all other groups in the 317X0 sample in that they mainly operate construction-type equipment and tools, such as forklifts, hand power tools, drill presses, grinders, overhead hoists, hand saws, and trenchers. Typical tasks include setting up and tearing down partitions and performing routine housekeeping functions. Very few tasks are directly related to electronic instrumentation.

GRP032 Satellite Data Technician

The 35 members of this group are primarily 5- and 7-skill level personnel who spend approximately 80 percent of their time in work related to satellite operations. Typical tasks include those involved with pre- and post-testing of satellite operations, such as informing test directors of abnormal indications, isolating equipment malfunctions, selecting and analyzing real time data, and calibrating and adjusting magnetic data tape recorders. This group also performs operational checks on UHF and VHF receivers. The majority of the members find their jobs very interesting,

although they expressed the feeling that their training was only being utilized very little or fairly well. The average number of tasks performed by any member of the group was 30, somewhat lower than other groups.

GRP185 Maintenance Control Specialist

The five members of this small group are assigned to AFSC (60 percent) and SAC (40 percent). All possess the 5-skill level. Tasks performed include: the keeping of status boards and charts; the coordination of work activities; the analysis of work loads; and the planning of briefings.

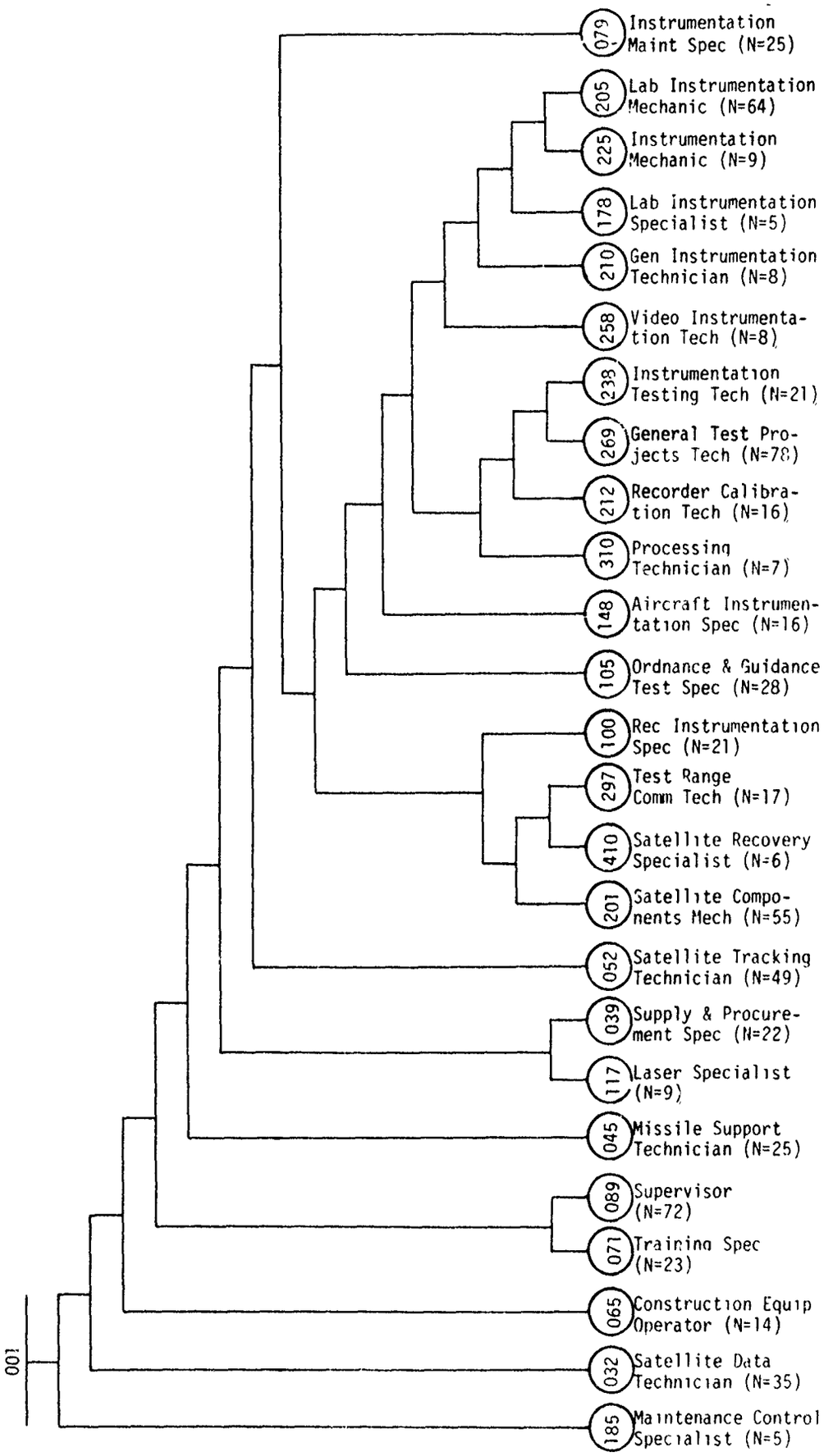
079 Instrumentation Maint Spec (N=25)
205 Lab Instrumentation Mechanic (N=64)
225 Instrumentation Mechanic (N=9)
178 Lab Instrumentation Specialist (N=5)
210 Gen Instrumentation Technician (N=8)
258 Video Instrumentation Tech (N=8)
238 Instrumentation Testing Tech (N=21)
269 General Test Projects Tech (N=78)
212 Recorder Calibration Tech (N=16)
310 Processing Technician (N=7)
148 Aircraft Instrumentation Spec (N=16)
105 Ordnance & Guidance Test Spec (N=28)
100 Rec Instrumentation Spec (N=21)
297 Test Range Comm Tech (N=17)
410 Satellite Recovery Specialist (N=6)
201 Satellite Components Mech (N=55)
052 Satellite Tracking Technician (N=49)
039 Supply & Procurement Spec (N=22)
117 Laser Specialist (N=9)
045 Missile Support Technician (N=25)
089 Supervisor (N=72)
071 Training Spec (N=23)
065 Construction Equip Operator (N=14)
032 Satellite Data Technician (N=35)
185 Maintenance Control Specialist (N=5)
100

FIGURE 1

ANALYSIS OF DAFSC GROUPS

The 317X0 specialty descriptions contained in AFM 39-1 (1 Oct 74) were compared with the survey data and were generally found to be accurate descriptions of the tasks and duties performed by 317X0 personnel. The specialty descriptions for the 3-, 5-, and 7-skill levels outline the functions of assembly, installation, maintenance, repair, calibration, analysis, and modification of instrumentation equipment and related supervisory functions. Analysis of the data shows acceptable percentages of personnel performing tasks relating to these general functions. Although jobs performed by personnel in this ladder differ significantly from assignment to assignment, the general tasks and broad functional knowledge required of instrumentation incumbents appear to be adequately covered in the specialty descriptions.

Skill Level Groups

Task performance in terms of DAFSC groups follows a typical progression, with supervisory tasks increasing with experience. Table 11 reflects the percent time spent by DAFSC incumbents on each duty listed in the job inventory booklet. As shown, supervisory tasks from the first four duties take up eight percent of the job time of DAFSC 31750 survey respondents, 26 percent of the time for personnel at the 7-skill level, and 59 percent of the job time of incumbents with a 31790 DAFSC.

An interesting situation is noticed in the time spent on many of the technical duties across skill groups. Very little difference occurs in the amount of job time spent on the tasks within each duty as skill level increases. For example, Duty G, Performing Supply and Procurement Actions, shows a relatively stable percent time for each skill group, ranging from five percent for DAFSC 31750 personnel to seven percent for DAFSC 31770 personnel. The same thing occurs with Duty H, Preparing for Test Projects and Operations and Installing Instrumentation. It is primarily on Duty O, Performing General Repair Functions, and Duty P, Inspecting and Maintaining Installed Instrumentation Systems, that a noticeable change occurs across skill groups.

In addition to stable percent time spent figures across skill groups, it can also be seen that several duties show very little percent time spent on tasks within that duty. This is evident on those duties involving reducing and analyzing test data; developing test data; performing post-test procedures; inspecting, operating, and maintaining aircraft instrumentation systems; designing and constructing laser systems; installing, checking, and testing munitions or ordnance devices; inspecting and maintaining antenna systems; and inspecting and maintaining missile instrumentation systems.

5-, 7-, and 9-Skill Level Differences

Table 12 lists those tasks which most clearly differentiate between the 5- and 7-skill level personnel in terms of jobs performed. As shown, most of these tasks involve supervision. However, this trend does not occur when comparing differences between 7- and 9-skill level incumbents. Table 13 lists those tasks which best differentiate between these two groups. In this case, it is technical tasks that show the largest difference rather than supervisory tasks.

TABLE 11

PERCENT TIME SPENT ON DUTIES BY DAFSC GROUPS

	DUTY	TOTAL SAMPLE	DAFSC 31750	DAFSC 31770	DAFSC 31790
A	ORGANIZATION AND PLANNING	5	3	8	21
B	DIRECTING AND IMPLEMENTING	5	2	8	17
C	EVALUATING	3	1	5	17
D	TRAINING	3	2	5	4
E	INSPECTING FOR CAPABILITY, QUALITY OR ADHERENCE TO STANDARDS	3	2	4	6
F	WORKING WITH FORMS, RECORDS, REPORTS, AND TECHNICAL DATA	6	5	8	12
G	PERFORMING SUPPLY AND PROCUREMENT ACTIONS	5	5	7	6
H	PREPARING FOR TEST PROJECTS AND OPERATIONS AND INSTALLING INSTRUMENTATION	7	7	6	5
I	PERFORMING PREOPERATIONAL INSTRUMENTATION CHECKS	3	3	2	2
J	PERFORMING TEST, LAUNCH, OR SATELLITE OPERATIONS	4	4	4	2
K	PERFORMING POST-TEST PROCEDURES	2	2	2	1
L	REDUCING AND ANALYZING TEST DATA	2	2	2	1
M	DEVELOPING TECHNICAL DATA	2	1	2	3
N	CONSTRUCTING INSTRUMENTATION CIRCUITS OR DEVICES	6	7	6	-
O	PERFORMING GENERAL REPAIR FUNCTIONS	15	19	10	1
P	INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	20	24	15	1
Q	INSPECTING, OPERATING, AND MAINTAINING AIRCRAFT INSTRUMENTATION SYSTEMS	1	1	1	-
R	DESIGNING AND CONSTRUCTING LASER SYSTEMS	1	1	1	1
S	INSTALLING, CHECKING AND TESTING MUNITIONS OR ORDNANCE DEVICES	1	1	-	-
T	INSPECTING AND MAINTAINING ANTENNA SYSTEMS	1	1	1	1
U	INSPECTING AND MAINTAINING MISSILE INSTRUMENTATION SYSTEMS	1	1	-	-
V	PERFORMING MISCELLANEOUS MISSION SUPPORT FUNCTIONS	4	5	2	-

TABLE 12

TASKS WHICH MOST CLEARLY DIFFERENTIATE BETWEEN 5- AND 7-SKILL LEVEL PERSONNEL
(PERCENT MEMBERS PERFORMING)

	TASK	5-SKILL LEVEL	7-SKILL LEVEL	DIFFERENCE
B33	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	14	60	46
A20	PLAN OR SCHEDULE WORK ASSIGNMENTS	12	53	41
B51	SUPERVISE INSTRUMENTATION MECHANIC (AFSC 31750) PERSONNEL	18	56	38
F124	DRAFT CORRESPONDENCE OR REPORTS	8	43	35
B32	CONDUCT OR PARTICIPATE IN STAFF MEETINGS	12	44	32
B34	DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES	29	60	31
B52	SUPERVISE INSTRUMENTATION TECHNICIAN (AFSC 31770) PERSONNEL	2	32	30
A28	SCHEDULE LEAVES OR PASSES	4	34	30
B47	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	10	40	30
A12	ESTABLISH OR UPDATE ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDING OPERATING PROCEDURES (SOP)	7	34	27
D88	COUNSEL TRAINEES ON TRAINING PROGRESS	15	42	27
C54	ANALYZE WORK LOAD REQUIREMENTS	6	33	27
D90	DETERMINE TRAINING REQUIREMENTS	6	32	26

TABLE 13

TASKS WHICH CLEARLY DIFFERENTIATE BETWEEN 7- AND 9-SKILL LEVEL PERSONNEL
(PERCENT MEMBERS PERFORMING)

	TASK	7-SKILL LEVEL	9-SKILL LEVEL	DIFFERENCE
0358	RESOLDER BROKEN OR LOOSE WIRING OR TERMINALS IN CHASSIS	54	3	51
0361	SOLDER OR DESOLDER ELECTRONIC COMPONENTS IN CHASSIS	53	3	50
0362	SOLDER OR RESOLDER ELECTRONIC COMPONENTS ON CIRCUITS BOARDS	53	3	50
0359	RESOLDER BROKEN OR LOOSE WIRING OR TERMINALS ON CIRCUIT BOARDS	51	3	48
0343	PERFORM HOUSEKEEPING FUNCTIONS	54	12	42
0370	TEST RESISTORS	44	3	41
J236	ISOLATE EQUIPMENT MALFUNCTIONS DURING OPERATIONAL TESTS	49	9	40
P397	ALIGN OR ADJUST POWER SUPPLIES	43	3	40
0351	REMOVE OR REPLACE CHASSIS OR CIRCUIT CARD ASSEMBLIES	42	3	39
0366	TEST DIODES	42	3	39
0374	TEST TRANSISTORS	42	3	39
0363	SPLICE CABLING OR WIRING	41	3	38
N290	CONSTRUCT CIRCUIT INTERCONNECTING CABLING	38	0	38
P505	PERFORM CONTINUITY CHECKS OF ELECTRICAL HARNESSES	36	0	36
P526	PERFORM OPERATIONAL CHECKS OF POWER SUPPLIES	42	6	36
0365	TEST CAPACITORS	39	3	36
N286	BREADBOARD CIRCUITS	35	0	35
N289	CONSTRUCT CIRCUIT CHASSIS OR BOXES	35	0	35
V699	OPERATE POWER HAND TOOLS	47	12	35

ANALYSIS OF AFMS GROUPS

As a comparison to trends noted in the tasks performed with skill upgrading, an analysis was made comparing job differences across enlistment groups. Conclusions similar to those for DAFSC groups were noted.

Table 14 reflects the percent of time spent on each duty of the inventory by incumbents grouped by AFMS time. As with DAFSC groupings, the time spent on most duties were relatively stable across all enlistment groups. Only on supervisory duties is there a noticeable increase in percent time spent as experience increases, while duties O and P, dealing with general repair functions and inspecting and maintaining installed systems, show a noticeable decrease in time spent as time in service increases.

TABLE 14

PERCENT TIME SPENT ON DUTIES BY AFMS GROUPS *

DUTY	1st JOB (12-30 MO AFMS)	MONTHS ACTIVE FEDERAL MILITARY SERVICE 1-48	49-96	97-144	145-192	193-240
A ORGANIZATION AND PLANNING	-	-	3	5	8	10
B DIRECTING AND IMPLEMENTING	-	-	4	5	9	9
C EVALUATING	-	-	-	4	5	6
D TRAINING	-	-	4	6	5	6
E INSPECTING FOR CAPABILITY, QUALITY, OR ADHERENCE TO STANDARDS	-	-	-	3	4	4
F WORKING WITH FORMS, RECORDS, REPORTS, AND TECHNICAL DATA	4	5	5	6	8	8
G PERFORMING SUPPLY AND PROCUREMENT ACTIONS	4	5	5	6	6	6
H PREPARING FOR TEST PROJECTS AND OPERATION AND INSTALLING INSTRUMENTATION	8	8	7	6	7	6
I PERFORMING PREOPERATIONAL INSTRUMENTATION CHECKS	3	3	3	-	3	-
J PERFORMING TEST, LAUNCH, OR SATELLITE OPERATIONS	4	4	4	4	4	4
K PERFORMING POST-TEST PROCEDURES	3	3	3	-	-	-
L REDUCING AND ANALYZING TEST DATA	-	-	-	-	-	-
M DEVELOPING TECHNICAL DATA	-	-	-	-	-	-
N CONSTRUCTING INSTRUMENTATION CIRCUITS OR DEVICES	7	7	6	6	5	5
O PERFORMING GENERAL REPAIR FUNCTIONS	24	22	15	12	10	7
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	25	23	26	19	16	15
Q INSPECTING, OPERATING, AND MAINTAINING AIRCRAFT INSTRUMENTATION SYSTEMS	-	-	-	-	-	-
R DESIGNING AND CONSTRUCTING LASER SYSTEMS	-	-	-	-	-	-
S INSTALLING, CHECKING AND TESTING MUNITIONS OR ORDNANCE DEVICES	-	-	-	-	-	-
T INSPECTING AND MAINTAINING ANTENNA SYSTEMS	-	-	-	-	-	-
U INSPECTING AND MAINTAINING MISSILE INSTRUMENTATION SYSTEMS	-	-	-	-	-	-
V PERFORMING MISCELLANEOUS MISSION SUPPORT FUNCTIONS	4	5	4	3	-	-

* Duties showing less than three percent time spent are marked by (-)

ANALYSIS OF TASK DIFFICULTY

From a listing of airmen identified for the 317X0 job survey, 140 incumbents in the 7- and 9-skill levels from various commands and locations were selected for rating task difficulty. Tasks were rated on a seven-point scale from very-much-below average to very-much-above average difficulty, with difficulty defined as the length of time it takes an average incumbent to learn to do the task. Interrater agreement among the 90 raters who returned useable booklets was .96. Ratings were adjusted so that tasks of average difficulty have a rating of 5.00.

The following conclusions were found concerning the difficulty of tasks performed by respondents in the 317X0 career field:

1. The five most difficult tasks were technical tasks dealing with laser technology. These laser tasks included the design of cavities, gas flow systems, voltage systems, and chemical flow systems. However, only about one percent of the 317X0 respondents performed these tasks.

2. Of the 100 most difficult tasks, most were technical tasks which were related to the design, isolation, or analysis of electronic items.

3. Table 15 lists those tasks rated above average in difficulty which were performed by more than 30 percent of the survey respondents. No particular trend was noted in the tasks listed.

4. Table 16 lists those tasks rated below average in difficulty which were performed by more than 40 percent of the respondents. Most of the tasks listed relate to general repair functions.

TABLE 15

TASKS RATED ABOVE AVERAGE IN DIFFICULTY
WHICH WERE PERFORMED BY 30 PERCENT OR MORE
OF SURVEY RESPONDENTS

	TASK	DIFFICULTY INDEX	PERCENT MEMBERS PERFORMING
J236	ISOLATE EQUIPMENT MALFUNCTIONS DURING OPERATIONAL TESTS	6.67	47
B34	DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES	5.85	39
P478	ISOLATE MALFUNCTIONS IN POWER SUPPLIES	5.58	32
B33	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	5.43	31
G180	RESEARCH PARTS, SUPPLIES, OR EQUIPMENT IDENTIFYING DATA FROM MANUFACTURERS' CATALOGS	5.25	35
I226	COORDINATE INSTRUMENTATION CHECKOUT WITH OTHER TEST TEAMS OR SUPPORT AGENCIES	5.22	32
N289	CONSTRUCT CIRCUIT CHASSIS OR BOXES	5.12	31
P376	ALIGN, ADJUST, OR CALIBRATE INSTRUMENTATION AMPLIFIERS	5.11	33
P445	CHECK OR ADJUST POWER SUPPLIES	5.03	41
H191	COORDINATE WITH OTHER TEAM MEMBERS TO SET UP TESTS	5.02	37

TABLE 16

TASKS RATED BELOW AVERAGE IN DIFFICULTY
WHICH WERE PERFORMED BY 40 PERCENT OR MORE
OF SURVEY RESPONDENTS

	TASK	DIFFICULTY INDEX	PERCENT MEMBERS PERFORMING
P526	PERFORM OPERATIONAL CHECKS OF POWER SUPPLIES	4.41	44
0362	SOLDER OR DESOLDER ELECTRONIC COMPONENTS ON CIRCUIT BOARDS	4.28	58
P397	ALIGN OR ADJUST POWER SUPPLIES	4.17	43
0374	TEST TRANSISTORS	4.16	46
0363	SPLICE CABLING OR WIRING	4.04	45
0361	SOLDER OR RESOLDER ELECTRONIC COMPONENTS IN CHASSIS	3.90	57
0359	RESOLDER BROKEN OR LOOSE WIRING OR TERMINALS ON CIRCUIT BOARDS	3.78	55
0358	RESOLDER BROKEN OR LOOSE WIRING OR TERMINALS IN CHASSIS	3.57	60
0365	TEST CAPACITORS	3.47	41
0366	TEST DIODES	3.45	45
V699	OPERATE POWER HAND TOOLS	3.09	47
0370	TEST RESISTORS	2.91	49
G186	UNPACK EQUIPMENT OR COMPONENTS	2.19	40

COMPARISON OF SPECIALTY TRAINING STANDARD (STS) TO SURVEY DATA

Most paragraphs in STS 317X0 (6 July 1973) were compared to the survey data. Paragraphs 1-3 were not evaluated because of their general applicability to all career ladders. Paragraphs 7, 9, and 13 were also not evaluated since they were primarily concerned with knowledge levels rather than task performance levels.

All paragraphs evaluated were found to be generally supported by the survey data. Only paragraph 23, covering standard test equipment, was found to contain discrepancies based on task performance data. Table 17 reflects the percent members using those items of equipment specifically listed in the paragraph. Other items of equipment which were found to be used by more than 20 percent of the survey respondents but which are not listed in the STS are shown in Table 18.

In addition to the equipment listed above, several items of equipment not specifically related to instrumentation but which are being used to some degree by instrumentation personnel were also identified. These are listed in Table 19.

TABLE 17

USE OF TEST EQUIPMENT LISTED IN STS

STS PARAGRAPH	ITEM	PERCENT USING
23a	OSCILLOSCOPE	78
23b	VTVM	34
23c	SIGNAL GENERATOR	71
23e	MULTIMETERS	78
23f	DIGITAL VOLTMETER	77
23g	TUBE TESTER	31
23h	SOLID STATE DEVICE TESTER	39
23i	POWER METER	39
23j	DIFFERENTIAL VOLTMETER	60
23k	SPECTRUM ANALYZER	41
23l	OSCILLOSCOPE CAMERA	33
23m	DECADE BOXES	44
23n	WHEATSTONE BRIDGE	21

TABLE 18

EQUIPMENT USED BY 317X0 PERSONNEL
WHICH ARE NOT SPECIFICALLY LISTED IN THE STS

ITEM	PERCENT USING
OSCILLOGRAPH RECORDERS	48
DISCRIMINATORS	43
TIME CODE GENERATORS	43
DIGITAL RECORDER	36
SWEEP GENERATORS	34
MULTIPLEXERS	33
RF ATTENUATORS	33
MULTICOUPLERS	31
ACCELEROMETERS	28
PRESSURE TRANSDUCERS	28
STRAIN GAGES	23
TIME DELAY UNITS	23

TABLE 19

UTILIZATION OF EQUIPMENT BY 317X0 PERSONNEL
WHICH IS NOT DIRECTLY RELATED TO INSTRUMENTATION

ITEM	PERCENT USING
METAL WORKING TOOLS	27
GRINDERS	26
CARPENTRY TOOLS	25
FORKLIFTS	24
HOISTS	22
FLATBED TRUCKS	14
CHERRY PICKERS	5

RELEVANCE OF TRAINING

The Plan of Instruction (POI) for the Instrumentation Mechanic basic course, 3ABR31730, dated 1 February 74, was evaluated in terms of task performance of the 438 survey respondents holding DAFSC 31750. The course is 32 weeks in length, with 12 weeks of modular self-paced electronic principles and 20 weeks of theory and concepts pertaining to instrumentation systems.

Training for the 317X0 career ladder is somewhat difficult and complicated due to the makeup of the career ladder. Most of the work involves research and development which varies greatly from assignment to assignment. No amount of training can cover all possible work situations which 317X0 incumbents may face in the career ladder. Much of this is reflected in the percent of members performing tasks within the career ladder. In most cases, only about 40 tasks are being performed by more than 30 percent of the incumbents. The net effect is that the 317X0 career ladder involves many diverse jobs. An individual in any one job may have little or no overlap in tasks with individuals in other jobs. This in turn presents a training problem.

Telephone conversations and written correspondence with training personnel at the technical school reflect that because of the wide range of tasks possible, training effectiveness should be looked at from the standpoint of whether 10 percent or more of the incumbents are performing a task or set of tasks. Therefore, in evaluating the training effectiveness for this report, a cutoff of 10 percent or more members performing was used. However, the 10 percent figure disagrees with the 30 and 50 percent quidelines specified in Attachment 1 of ATCR 52-22.

Table 20 presents task performance data for which training is identified in the course charts. The table identifies the course block and title, the number of classroom/laboratory hours allotted, the tasks which reflect the subject being taught, and the percent of 5-skill level personnel performing each task. Because of the way the task list was prepared, several tasks of a general nature are identified in more than one block of the POI.

In most cases, each block of training is supported by task performance. Specifically, those areas related to soldering and operating power hand tools and test equipment showed the highest percent members performing. These areas generally showed more than 30 percent of the members performing related tasks, as opposed to less than 30 percent performing tasks in other areas of training.

Table 21 reflects the percent members who operate or maintain specific instrumentation systems across various skill level groups. The table reflects that magnetic tape recorders are operated or maintained by the largest percent of 317X0 personnel, with FM and closed circuit TV systems showing the next highest percent. Table 22 lists the various equipment used by 317X0 personnel. Common test equipment items are found to show high percentages of members using them, as might be expected. Use of these two tables should be of some use to technical school personnel in planning which instrumentation systems and equipment should be stressed in the basic course.

TABLE 20

PERFORMANCE OF TASKS FOR WHICH TRAINING IS PROVIDED IN COURSE 3ABR31730
(INSTRUMENTATION MECHANIC)

BLOCK	SECTION	TITLE	HOURS ALLOTTED	TASK	PERCENT MEMBERS PERFORMING 5-SKILL LEVEL
II	3a	AIR FORCE TECHNICAL ORDER SYSTEM	8	DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION (D89)	20.1
	4a	MAINTENANCE MANAGEMENT, INSPECTION SYSTEMS AND FORMS	11	COMPLETE LOCAL MAINTENANCE OR TIME ACCOUNTING FORMS (F121)	26.9
				MAKE ENTRIES ON REPAIRABLE ITEMS PROCESSING TAG FORMS (AFTO FORM 350) (F144)	32.2
				PREPARE OR REVIEW MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349) (F151)	22.4
	5a	CORROSION CONTROL AND SAFETY	8	REMOVE OR TREAT CORROSION ON ELECTRONIC CHASSIS OR COMPONENTS (0355)	30.4
				REMOVE OR TREAT CORROSION ON METAL CABINETS OR EQUIPMENT SUPPORTS (0356)	23.3
III	1b	TEST EQUIPMENT OPERATION	24	PERFORM PREFLIGHT SYSTEMS CHECKS (I231)	26.3
				ISOLATE EQUIPMENT MALFUNCTIONS DURING OPERATIONAL TESTS (J236)	49.3
				CHECK CALIBRATION OF TEST EQUIPMENT (0332)	37.7
				CLEAN OR PREPARE WIND TUNNEL SURFACES (0336)	.2
				REMOVE OR REPLACE PLUG-IN UNITS SUCH AS FILTERS OR TUBES (0354)	37.7
				TEST CAPACITORS (0365)	45.2
				TEST TRANSISTORS (0374)	52.7
				TEST TUBES (0375)	30.8
				TEST RESISTORS (0370)	55.5
				ALIGN OR ADJUST POLAROID CAMERAS (P396)	11.4
				ALIGN OR ADJUST STANDARD FREQUENCY OSCILLATORS (P409)	13.7
				PERFORM OPERATIONAL CHECKS OF POWER SUPPLIES (P526)	49.1

TABLE 20 (CONTINUED)

PERFORMANCE OF TASKS FOR WHICH TRAINING IS PROVIDED IN COURSE 3ABR31730
(INSTRUMENTATION MECHANIC)

BLOCK	SECTION	TITLE	HOURS ALLOTTED	TASK	PERCENT MEMBERS PERFORMING 5-SKILL LEVEL
IV	1a	HANDTOOLS	3	OPERATE POWER HAND TOOLS (V699)	50.2
	2a	SOLDERING	5	RESOLDER BROKEN OR LOOSE WIRING OR TERMINALS IN CHASSIS (0358)	68.5
				RESOLDER BROKEN OR LOOSE WIRING OR TERMINALS ON CIRCUIT BOARDS (0359)	63.0
				SOLDER OR DESOLDER ELECTRONIC COMPONENTS IN CHASSIS (0361)	65.8
				SOLDER OR DESOLDER ELECTRONIC COMPONENTS ON CIRCUIT BOARDS (0362)	65.5
				SPLICE CABLING OR WIRING (0363)	50.7
	4a	BASIC DATA ACQUISITION AND REDUCTION SYSTEMS	19	INSTALL OR REMOVE TRANSPONDERS (H209)	9.6
V	5a	OPERATION AND CALIBRATION OF INSTRUMENTATION RECORDERS	24	ESTABLISH SET UP REQUIREMENTS FOR RECORDERS (H194)	16.7
				PERFORM PREFLIGHT SYSTEMS CHECKS (I231)	26.3
				ISOLATE EQUIPMENT MALFUNCTIONS DURING OPERATIONAL TESTS (J236)	49.3
				REPRODUCE INSTRUMENTATION RECORDINGS (K264)	29.2
				ALIGN, ADJUST, OR CALIBRATE X-Y PLOTTERS (P377)	18.3
				ALIGN OR ADJUST MAGNETIC TAPE DEMAGNETIZERS (P394)	12 6
				ALIGN OR ADJUST POWER SUPPLIES (P397)	48.4
				CALIBRATE OR ADJUST HEATED WIRE STYLUS RECORDERS (P430)	15.8
				CALIBRATE OR ADJUST MAGNETIC DATA TAPE RECORDERS (P435)	34 7
				CHECK OR ADJUST POWER SUPPLIES (P445)	45 9
				CALIBRATE TIME CODE DEMODULATORS (P443)	12 1

TABLE 20 (CONTINUED)

PERFORMANCE OF TASKS FOR WHICH TRAINING IS PROVIDED IN COURSE 3A8R31730
(INSTRUMENTATION MECHANIC)

BLOCK	SECTION	TITLE	HOURS ALLOTTED	TASK	PERCENT MEMBERS PERFORMING 5-SKILL LEVEL
V (Cont'd)				CALIBRATE OR ADJUST PEN AND INK RECORDERS (P436)	27.9
				PERFORM OPERATIONAL CHECKS OF HEATED WIRE STYLUS RECORDERS (P514)	13.2
				PERFORM OPERATIONAL CHECKS OF INSTRUMENTATION AMPLIFIERS (P519)	24.7
				PERFORM OPERATIONAL CHECKS OF LIGHT BEAM RECORDERS (P520)	25.1
				PERFORM OPERATIONAL CHECKS OF MAGNETIC DATA TAPE RECORDERS (P522)	36.5
				PERFORM OPERATIONAL CHECKS OF POWER SUPPLIES (P526)	49.1
VI	1b	PHYSICS, TRANSDUCERS AND SIGNAL CONDITIONERS	24	INSTALL OR REMOVE SENSORS OR TRANSDUCERS (H205)	34.5
	2a	FREQUENCY MULTIPLEXING	16	PERFORM COMMUNICATIONS EQUIPMENT OPERATING CHECKS (0342)	17.1
VII	2a	ALIGNMENT, OPERATION, AND CALIBRATION OF MICROWAVE AND ANTENNA SYSTEMS	11	PERFORM PREFLIGHT SYSTEMS CHECKS (I231)	26.3
				ISOLATE EQUIPMENT MALFUNCTIONS DURING OPERATIONAL TESTS (J236)	49.3
				PERFORM OPERATIONAL CHECKS OF POWER SUPPLIES (P526)	49.1
VIII	2a	OPERATION, CALIBRATION AND ALIGNMENT OF AIRBORNE DATA AQUISITION SET	32	INSTALL OR REMOVE SENSORS OR TRANSDUCERS (H205)	4.1
				PERFORM PREFLIGHT SYSTEMS CHECKS (I231)	26.3
				ISOLATE EQUIPMENT MALFUNCTIONS DURING OPERATIONAL TESTS (J236)	49.3
				PERFORM OPERATIONAL CHECKS OF POWER SUPPLIES (P526)	49.1
				ALIGN OR ADJUST VOLTAGE CONTROLLED OSCILLATORS (P419)	23.7
				PERFORM OPERATIONAL CHECKS OF PRESSURE MEASUREMENT SYSTEMS (P527)	12.6
				PERFORM OPERATIONAL CHECKS OF VOLTAGE CONTROLLED OSCILLATORS (P538)	27.2

TABLE 20 (CONTINUED)

PERFORMANCE OF TASKS FOR WHICH TRAINING IS PROVIDED IN COURSE 3ABR31730
(INSTRUMENTATION MECHANIC)

BLOCK	SECTION	TITLE	HOURS ALLOTTED	TASK	PERCENT MEMBERS PERFORMING 5-SKILL LEVEL
IX	2b	RECEIVING COMPONENT ANALYSIS	11	ISOLATE MALFUNCTIONS IN VHF RECEIVERS (P499)	15.1
	3b,c	DETAILED ANALYSIS OF SPECTRUM ANALYZERS AND SUBCARRIER DISCRIMINATORS	21	ISOLATE MALFUNCTIONS IN DISCRIMINATORS (P456)	18.5
	5a	ALIGNMENT, OPERATION AND CALIBRATION OF FREQUENCY DEMULTIPLEXING COMPONENTS	27	PERFORM PREFLIGHT SYSTEMS CHECKS (I231)	26.3
				ISOLATE EQUIPMENT MALFUNCTION DURING OPERATIONAL TESTS (J236)	49.3
				ALIGN OR ADJUST SPECTRUM DISPLAY UNITS (P408)	18.9
				PERFORM OPERATIONAL CHECKS OF POWER SUPPLIES (P526)	49.1
				PERFORM OPERATIONAL CHECKS OF VHF RECEIVERS (P535)	23.7
X	4a	PRINCIPLES OF MALFUNCTION ISOLATION AND REPAIR	13	ISOLATE EQUIPMENT MALFUNCTION DURING OPERATIONAL TESTS (J236)	49.3
				ISOLATE MALFUNCTIONS IN INSTRUMENTATION AMPLIFIERS (P466)	19.4
				ISOLATE MALFUNCTIONS IN PAM DECOMMUTATION UNITS (P471)	6.6
				ISOLATE MALFUNCTIONS IN RF PREAMPLIFIERS (P485)	6.4
	4b			ISOLATE EQUIPMENT MALFUNCTIONS DURING OPERATIONAL TESTS (J236)	49.3
				ISOLATE MALFUNCTIONS IN UHF RECEIVERS (P497)	14.6
	5a	CALIBRATION, ALIGNMENT AND OPERATION OF INTEGRATED ANALOG SYSTEMS	27	PERFORM PREFLIGHT SYSTEMS CHECKS (I231)	26.3
				PERFORM SATELLITE OPERATIONS PREPASS CHECKS (I233)	12.3
				ISOLATE EQUIPMENT MALFUNCTIONS DURING OPERATIONAL TESTS (J236)	49.3
				OPERATE GROUND STATIONS DURING ORBITAL VEHICLE PASSES (J247)	12.1

TABLE 20 (CONTINUED)

PERFORMANCE OF TASKS FOR WHICH TRAINING IS PROVIDED IN COURSE 3ABR31730
(INSTRUMENTATION MECHANIC)

BLOCK	SECTION	TITLE	HOURS ALLOTTED	TASK	PERCENT MEMBERS PERFORMING 5-SKILL LEVEL
X (Cont'd)				REPRODUCE INSTRUMENTATION RECORDINGS (K264)	29.2
				ANALYZE RECORDINGS TO DETERMINE TEST RESULTS (L266)	16.7
				MONITOR DATA COLLECTING SYSTEMS SUCH AS OSCILLOGRAPHS DURING TESTS OR OPERATIONS (L270)	27.6
				SELECT AND ANALYZE REAL TIME DATA (L273)	13.9
				ALIGN, ADJUST, OR CALIBRATE INSTRUMENTATION AMPLIFIERS (P376)	7.8
				ALIGN OR ADJUST ANALOG SIGNAL CONDITIONING EQUIPMENT (P378)	29.0
				ALIGN OR ADJUST DATA DISPLAY SCOPES (P382)	23.7
				ALIGN OR ADJUST DISCRIMINATORS (P385)	30.8
				ALIGN OR ADJUST PULSE AMPLITUDE MODULATION (PAM) DECOMMUTATION UNITS (P398)	12.8
				ALIGN OR ADJUST PULSE DURATION MODULATION (PDM) DECOMMUTATION UNITS (P400)	8.7
				ALIGN OR ADJUST PDM OR PAM SIGNAL SIMULATORS (P402)	12.1
				ALIGN OR ADJUST VOLTAGE CONTROLLED OSCILLATORS (P419)	23.7
				CALIBRATE OR ADJUST LIGHT BEAM RECORDERS (P433)	24.7
				CHECK OR ADJUST POWER SUPPLIES (P445)	45.9
				PERFORM OPERATIONAL CHECKS OF ANALOG SIGNAL CONDITIONING EQUIPMENT (P506)	21.5
				PERFORM OPERATIONAL CHECKS OF INSTRUMENTATION AMPLIFIERS (P519)	24.7
				PERFORM OPERATIONAL CHECKS OF LIGHT BEAM RECORDERS (P520)	25.1
				PERFORM OPERATIONAL CHECKS OF MAGNETIC DATA TAPE RECORDERS (P522)	36.5
				PERFORM OPERATIONAL CHECKS OF PEN AND INK RECORDERS (P524)	25.3
				PERFORM OPERATIONAL CHECKS OF POWER SUPPLIES (P526)	49.1
				PERFORM OPERATIONAL CHECKS OF VHF RECEIVERS (P535)	23.7
				VISUALLY INSPECT INSTALLATION OF ELECTRICAL HARNESSES OR CONNECTORS (P551)	42.7

TABLE 20 (CONTINUED)

PERFORMANCE OF TASKS FOR WHICH TRAINING IS PROVIDED IN COURSE 3ABR31730
(INSTRUMENTATION MECHANIC)

BLOCK	SECTION	TITLE	HOURS ALLOTTED	TASK	PERCENT MEMBERS PERFORMING 5-SKILL LEVEL
XII	2a	PROCESSOR PROGRAMING AND INPUT/OUTPUT DEVICES	24	OPERATE AUTOMATIC DATA PROCESSORS (L271)	10.7
	2b			WRITE COMPUTER PROGRAMS (N319)	7.8
	2c			OPERATE AUTOMATIC DATA PROCESSORS (L271)	10.7
	3b	COMPONENT ANALYSIS AND OPERATION OF AUTOMATIC PROCESSING EQUIPMENT	11	ISOLATE EQUIPMENT MALFUNCTIONS DURING OPERATIONAL TESTS (J236)	49.3
XIII	3a	OPERATION OF DIGITAL DATA ACQUISITION SYSTEM	11	PERFORM PREFLIGHT SYSTEMS CHECKS (I231)	26.3
				ISOLATE EQUIPMENT MALFUNCTIONS DURING OPERATIONAL TESTS (J236)	49.3
				PERFORM OPERATIONAL CHECKS OF POWER SUPPLIES (P526)	49.1
XIV	4a	INTEGRATED DIGITAL SYSTEMS TEST PROJECTS	24	PROGRAM PATCH PANELS (H216)	25.6
				PERFORM PREFLIGHT SYSTEMS CHECKS (I231)	26.3
				PERFORM SATELLITE OPERATIONS PREPASS CHECKS (I233)	12.3
				ISOLATE EQUIPMENT MALFUNCTIONS DURING OPERATIONAL TESTS (J236)	49.3
				OPERATE GROUND STATIONS DURING ORBITAL VEHICLE PASSES (J247)	12.1
				ALIGN OR ADJUST DIGITAL SIGNAL CONDITIONING EQUIPMENT (P383)	18.9
				ALIGN OR ADJUST PULSE CODE MODULATION (PCM) DECOMMUTATION UNITS (P399)	12.8
				ALIGN OR ADJUST PCM SIGNAL SIMULATORS (P401)	13.2
				ISOLATE MALFUNCTIONS IN DIGITAL SIGNAL CONDITIONING EQUIPMENT (P454)	12.8
				ISOLATE MALFUNCTIONS IN DIGITAL TO ANALOG CONVERTERS (P455)	12.3

TABLE 20 (CONTINUED)

PERFORMANCE OF TASKS FOR WHICH TRAINING IS PROVIDED IN COURSE 3ABR31730
(INSTRUMENTATION MECHANIC)

BLOCK	SECTION	TITLE	HOURS ALLOTTED	TASK	PERCENT MEMBERS PERFORMING 5-SKILL LEVEL
XIV (Cont'd)				ISOLATE MALFUNCTIONS IN PCM DECOMMUTATION UNITS (P472)	11.0
				ISOLATE MALFUNCTIONS IN PCM SIGNAL SIMULATORS (P473)	9.8
				PERFORM OPERATIONAL CHECKS OF DIGITAL SIGNAL CONDITIONING EQUIPMENT (P512)	12.8
				PERFORM OPERATIONAL CHECKS OF POWER SUPPLIES (P526)	49.1
	5a	ANALYSIS OF TIME GENERATION AND FORMATS	8	REPRODUCE INSTRUMENTATION RECORDINGS (K264)	29.2
				ALIGN OR ADJUST SPECIALIZED TIMING SYSTEMS (P407)	15.8
XV	2a	ALIGNMENT AND OPERATION OF VIDEO RECORDER CLOSED CIRCUIT TELEVISION	12	INSTALL OR REMOVE TELEVISION (TV) SYSTEMS AT TEST SITES (H206)	7.5
				ISOLATE EQUIPMENT MALFUNCTIONS DURING OPERATIONAL TESTS (J236)	49.3
				PERFORM OPERATIONAL CHECKS OF CLOSED CIRCUIT TELEVISION SYSTEMS (P509)	8.7
				PERFORM OPERATIONAL CHECKS OF VIDEO MAGNETIC RECORDERS (P537)	11.6
	4a	PRINCIPLES OF LASER COMMUNICATIONS	1	EVALUATE LASER RADIATION SAFETY (H196)	1.6

TABLE 21

INSTRUMENTATION SYSTEMS OPERATED OR MAINTAINED
BY 317X0 PERSONNEL
(PERCENT MEMBERS RESPONDING)

EQUIPMENT	TOTAL SAMPLE	5-SKILL LEVEL	7-SKILL LEVEL	9-SKILL LEVEL
MAGNETIC TAPE RECORDER	50	51	50	27
FM	30	32	29	24
CLOSED CIRCUIT TV	20	17	26	9
UHF	19	22	17	9
VHF	15	18	11	12
MICROWAVE	14	14	13	15
OPTICAL	14	15	16	9
PHOTOGRAPHIC	11	11	14	6
LASER	10	9	12	12
HF	5	5	5	6
RADIATION DETECTION	4	3	5	0
MASER	1	0	0	0

TABLE 22

EQUIPMENT USED BY 317X0 PERSONNEL
(PERCENT MEMBERS RESPONDING)

EQUIPMENT	TOTAL SAMPLE	5-SKILL LEVEL	7-SKILL LEVEL	9-SKILL LEVEL
MULTIMETERS	78	82	76	42
OSCILLOSCOPES	78	81	75	42
DIGITAL VOLTMETER	77	83	70	36
SIGNAL DETECTORS	71	75	66	42
TAPE RECORDERS	61	62	61	33
DESOLDERING KITS	60	64	59	30
AMMETERS	54	56	52	24
POWER HAND TOOLS	47	48	47	27
DECADE BOXES	44	46	49	18
SPECTRUM ANALYZERS	41	42	41	36
SOLID STATE TESTERS	39	39	42	15
POWER METERS	39	39	43	27
DIGITAL RECORDERS	36	35	40	27
SWEEP GENERATORS	34	36	31	18
PULSE GENERATORS	33	34	34	24
TUBE TESTERS	31	29	37	18
X-Y PLOTTERS	28	31	26	18
THERMISTORS	25	27	24	18
VIDEO RECORDING	19	17	24	15
BANDSAWS	19	19	21	6
VACUUM GAGES	16	15	17	6
CRANES	10	11	9	3
INFRARED DETECTORS	9	8	12	9
STRESS GAGES	8	9	6	3
AERIAL CAMERAS	6	5	7	9
WELDING EQUIPMENT	5	5	7	6
X-RAY	1	1	2	3

APPENDIX A

GROUP ID NUMBER AND TITLE: GRP079 - Instrumentation Maintenance Specialist

PERCENT OF SAMPLE: 3%

MAJOR COMMAND DISTRIBUTION: SAC 80%
AFSC 20%

LOCATION: CONUS 100%

DAFSC DISTRIBUTION: 31750 (88%); 31770 (12%)

EXPRESSED JOB INTEREST: Fairly Interesting

PERCEIVED UTILIZATION OF TRAINING: Fairly Well

AVERAGE NUMBER OF TASKS PERFORMED: 94

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	23
O PERFORMING GENERAL REPAIR FUNCTIONS	12
F WORKING WITH FORMS, RECORDS, REPORTS, AND TECHNICAL DATA	11
G PERFORMING SUPPLY AND PROCUREMENT ACTIONS	7
H PREPARING FOR TEST PROJECTS AND OPERATION AND INSTALLING INSTRUMENTATION	7

FIVE REPRESENTATIVE TASKS:

H205 INSTALL OR REMOVE SENSORS OR TRANSDUCERS
E108 INSPECT FIXED INSTRUMENTATION EQUIPMENT
G186 UNPACK EQUIPMENT OR COMPONENTS
0352 REMOVE OR REPLACE MAJOR ELECTRONIC BOXES, UNITS, DRAWERS, OR ASSEMBLIES
Q557 INSTALL OR REMOVE INSTRUMENTATION PACKAGES IN AIRCRAFT

GROUP ID NUMBER AND TITLE: GRP205 - Laboratory Instrumentation Mechanic

PERCENT OF SAMPLE: 8%

MAJOR COMMAND DISTRIBUTION: AFCS 5%
AFSC 95%

LOCATION: CONUS 94%
OVERSEAS 6%

DAFSC DISTRIBUTION: 31730 (2%); 31750 (81%); 31770 (15%)

EXPRESSED JOB INTEREST: Fairly Interesting

PERCEIVED UTILIZATION OF TRAINING: Fairly Well

AVERAGE NUMBER OF TASKS PERFORMED: 85

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
O PERFORMING GENERAL REPAIR FUNCTIONS	24
N CONSTRUCTING INSTRUMENTATION CIRCUITS OR DEVICES	23
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	15
H PREPARING FOR TEST PROJECTS AND OPERATION AND INSTALLING INSTRUMENTATION	8

FIVE REPRESENTATIVE TASKS:

N293 CONSTRUCT CIRCUITS USING PRINTED CIRCUIT BOARDS
0362 SOLDER OR DESOLDER ELECTRONIC COMPONENTS ON CIRCUIT BOARDS
N306 DRAW CIRCUIT SCHEMATICS OR WIRING DIAGRAMS
V691 OPERATE DRILL PRESSES
N298 CONSTRUCT MOUNTING DEVICES FOR INSTRUMENTATION SYSTEMS

GROUP ID NUMBER AND TITLE: GRP225 - Instrumentation Mechanic

PERCENT OF SAMPLE: 1%

MAJOR COMMAND DISTRIBUTION: AFSC 100%

LOCATION: CONUS 100%

DAFSC DISTRIBUTION: 31730 (11%); 31750 (89%)

EXPRESSED JOB INTEREST: Fairly Interesting

PERCEIVED UTILIZATION OF TRAINING: Fairly Well

AVERAGE NUMBER OF TASKS PERFORMED: 46

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
O PERFORMING GENERAL REPAIR FUNCTIONS	34
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	16
N CONSTRUCTING INSTRUMENTATION CIRCUITS OR DEVICES	13
V PERFORMING MISCELLANEOUS MISSION SUPPORT FUNCTIONS	10
H PREPARING FOR TEST PROJECTS AND OPERATION AND INSTALLING INSTRUMENTATION	8

FIVE REPRESENTATIVE TASKS:

0362 SOLDER OR DESOLDER ELECTRONIC COMPONENTS ON CIRCUIT BOARDS
0351 REMOVE OR REPLACE CHASSIS OR CIRCUIT CARD ASSEMBLIES
H199 INSTALL OR LAY INSTRUMENTATION CABLES
0374 TEST TRANSISTORS
V680 INSTALL COMMUNICATION WIRING IN BUILDINGS

GROUP ID NUMBER AND TITLE: GRP178 - Laboratory Instrumentation Specialist

PERCENT OF SAMPLE: Less than 1%

MAJOR COMMAND DISTRIBUTION: AFSC 100%

LOCATION: CONUS 100%

DAFSC DISTRIBUTION: 31730 (20%); 31750 (60%); 31770 (20%)

EXPRESSED JOB INTEREST: Fairly Interesting

PERCEIVED UTILIZATION OF TRAINING: Quite Well

AVERAGE NUMBER OF TASKS PERFORMED: 39

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
N CONSTRUCTING INSTRUMENTATION CIRCUITS OR DEVICES	32
O PERFORMING GENERAL REPAIR FUNCTIONS	18
V PERFORMING MISCELLANEOUS MISSION SUPPORT FUNCTIONS	13
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	10
G PERFORMING SUPPLY AND PROCUREMENT ACTIONS	7

FIVE REPRESENTATIVE TASKS:

N239 OPERATE AIRBORNE STATIONS DURING ORBITAL VEHICLE PASSES
N317 TEST NEWLY CONSTRUCTED CIRCUITS
J249 OPERATE R&D TEST EQUIPMENT DURING TESTS
V687 INTERPRET BLUEPRINTS
0368 TEST INTEGRATED CIRCUITS

GROUP ID NUMBER AND TITLE: GRP210 - General Instrumentation Technician

PERCENT OF SAMPLE: 1%

MAJOR COMMAND DISTRIBUTION: AFSC 87%
AFCS 13%

LOCATION: CONUS 100%

DAFSC DISTRIBUTION: 31750 (25%); 31770 (75%)

EXPRESSED JOB INTEREST: Very Interesting

PERCEIVED UTILIZATION OF TRAINING: Very Well

AVERAGE NUMBER OF TASKS PERFORMED: 77

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
N CONSTRUCTING INSTRUMENTATION CIRCUITS OR DEVICES	21
O PERFORMING GENERAL REPAIR FUNCTIONS	13
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	12
D TRAINING	10
A ORGANIZATION AND PLANNING	10
B DIRECTING AND IMPLEMENTING	9

FIVE REPRESENTATIVE TASKS:

D85 CONDUCT OJT UPGRADE TRAINING
N292 CONSTRUCT CIRCUITS USING CONVENTIONAL RESISTORS, CAPACITORS, OR VACUUM TUBES
A20 PLAN OR SCHEDULE WORK ASSIGNMENTS
N300 DESIGN CIRCUIT CHASSIS OR BOXES
B33 COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS

GROUP ID NUMBER AND TITLE: GRP258 - Video Instrumentation Technician

PERCENT OF SAMPLE: 1%

MAJOR COMMAND DISTRIBUTION: AFSC 100%

LOCATION: CONUS 100%

DAFSC DISTRIBUTION: 31750 (37%); 31770 (62%)

EXPRESSED JOB INTEREST: Very Interesting

PERCEIVED UTILIZATION OF TRAINING: Fairly Well

AVERAGE NUMBER OF TASKS PERFORMED: 90

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	35
O PERFORMING GENERAL REPAIR FUNCTIONS	23
N CONSTRUCTING INSTRUMENTATION CIRCUITS OR DEVICES	11
Q INSPECTING, OPERATING, AND MAINTAINING AIRCRAFT INSTRUMENTATION SYSTEMS	8
H PREPARING FOR TEST PROJECTS AND OPERATION AND INSTALLING INSTRUMENTATION	7
G PERFORMING SUPPLY AND PROCUREMENT ACTIONS	4

FIVE REPRESENTATIVE TASKS:

P441 CALIBRATE OR ADJUST VIDEO MAGNETIC TAPE RECORDERS
P491 ISOLATE MALFUNCTIONS IN TELEVISION MONITORS
P490 ISOLATE MALFUNCTIONS IN TELEVISION CAMERAS
Q565 REMOVE OR REPLACE AIRCRAFT INSTRUMENTATION PACKAGE COMPONENTS
N312 INSTALL INSTRUMENTATION CABINETS OR EQUIPMENT IN TRAILERS, VANS, HOUSES, OR AIRCRAFT

GROUP ID NUMBER AND TITLE: GRP238 - Instrumentation Testing Technician

PERCENT OF SAMPLE: 3%

MAJOR COMMAND DISTRIBUTION: AFSC 95%
AFLC 5%

LOCATION: CONUS 100%

DAFSC DISTRIBUTION: 31750 (33%); 31770 (67%)

EXPRESSED JOB INTEREST: Very Interesting

PERCEIVED UTILIZATION OF TRAINING: Fairly Well

AVERAGE NUMBER OF TASKS PERFORMED: 133

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	24
H PREPARING FOR TEST PROJECTS AND OPERATION AND INSTALLING INSTRUMENTATION	12
O PERFORMING GENERAL REPAIR FUNCTIONS	10
N CONSTRUCTING INSTRUMENTATION CIRCUITS OR DEVICES	7
G PERFORMING SUPPLY AND PROCUREMENT ACTIONS	5

FIVE REPRESENTATIVE TASKS:

H199 INSTALL OR LAY INSTRUMENTATION CABLES
H205 INSTALL OR REMOVE SENSORS OR TRANSDUCERS
L270 MONITOR DATA COLLECTING SYSTEMS SUCH AS OSCILLOGRAPHS DURING TESTS OR OPERATIONS
P445 CHECK OR ADJUST POWER SUPPLIES
H203 INSTALL OR REMOVE INSTRUMENTATION EQUIPMENT AT TEST SITES

GROUP ID NUMBER AND TITLE: GRP269 - General Test Projects Technician

PERCENT OF SAMPLE: 10%

MAJOR COMMAND DISTRIBUTION:

AFSC	91%	ATC	1%
ADC	3%	TAC	1%
USAFA	3%		

LOCATION:

CONUS	99%
Overseas	1%

DAFSC DISTRIBUTION: 31750 (49%); 31770 (49%)

EXPRESSED JOB INTEREST: Very Interesting

PERCEIVED UTILIZATION OF TRAINING: Fairly Well

AVERAGE NUMBER OF TASKS PERFORMED: 189

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	22
O PERFORMING GENERAL REPAIR FUNCTIONS	15
N CONSTRUCTING INSTRUMENTATION CIRCUITS OR DEVICES	12
H PREPARING FOR TEST PROJECTS AND OPERATION AND INSTALLING INSTRUMENTATION	8
G PERFORMING SUPPLY AND PROCUREMENT ACTIONS	7

FIVE REPRESENTATIVE TASKS:

N289 CONSTRUCT CIRCUIT CHASSIS OR BOXES
0370 TEST RESISTORS
N298 CONSTRUCT MOUNTING DEVICES FOR INSTRUMENTATION SYSTEMS
J236 ISOLATE EQUIPMENT MALFUNCTIONS DURING OPERATIONAL TESTS
P526 PERFORM OPERATIONAL CHECKS OF POWER SUPPLIES

GROUP ID NUMBER AND TITLE: GRP212 - Recorder Calibration Technician

PERCENT OF SAMPLE: 2%

MAJOR COMMAND DISTRIBUTION: ADC 37%
AFSC 32%
ATC 31%

LOCATION: CONUS 100%

DAFSC DISTRIBUTION: 31730 (6%); 31750 (44%); 31770 (50%)

EXPRESSED JOB INTEREST: Fairly Interesting

PERCEIVED UTILIZATION OF TRAINING: Very Well

AVERAGE NUMBER OF TASKS PERFORMED: 204

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	38
O PERFORMING GENERAL REPAIR FUNCTIONS	13
F WORKING WITH FORMS, RECORDS, REPORTS, AND TECHNICAL DATA	6
D TRAINING	4
T INSPECTING AND MAINTAINING ANTENNA SYSTEMS	4

FIVE REPRESENTATIVE TASKS:

L270 MONITOR DATA COLLECTING SYSTEMS SUCH AS OSCILLOGRAPHS DURING TESTS OR OPERATIONS
P520 PERFORM OPERATIONAL CHECKS OF LIGHT BEAM RECORDERS
0374 TEST TRANSISTORS
P445 CHECK OR ADJUST POWER SUPPLIES
P377 ALIGN, ADJUST, OR CALIBRATE X-Y PLOTTERS

GROUP ID NUMBER AND TITLE: GRP310 - Processing Technician

PERCENT OF SAMPLE: Less than 1%

MAJOR COMMAND DISTRIBUTION: AFSC 100%

LOCATION: CONUS 100%

DAFSC DISTRIBUTION: 31750 (71%); 31770 (29%)

EXPRESSED JOB INTEREST: Fairly Interesting

PERCEIVED UTILIZATION OF TRAINING: Very Little

AVERAGE NUMBER OF TASKS PERFORMED: 107

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	21
O PERFORMING GENERAL REPAIR FUNCTIONS	17
H PREPARING FOR TEST PROJECTS AND OPERATION AND INSTALLING INSTRUMENTATION	11
V PERFORMING MISCELLANEOUS MISSION SUPPORT FUNCTIONS	11
N CONSTRUCTING INSTRUMENTATION CIRCUITS OR DEVICES	7
J PERFORMING TEST, LAUNCH, OR SATELLITE OPERATIONS	6
G PERFORMING SUPPLY AND PROCUREMENT ACTIONS	5
E INSPECTING FOR CAPABILITY, QUALITY, OR ADHERENCE TO STANDARDS	3

FIVE REPRESENTATIVE TASKS:

J249 OPERATE R&D TEST EQUIPMENT DURING TESTS
P421 ASSEMBLE OR DISASSEMBLE CAPACITIVE DISCHARGE BANKS
H223 SET UP HIGH VOLTAGE SYSTEMS
J236 ISOLATE EQUIPMENT MALFUNCTIONS DURING OPERATIONAL TESTS
V707 PROCESS OR DEVELOP FILM

GROUP ID NUMBER AND TITLE: GRP148 - Aircraft Instrumentation Specialist

PERCENT OF SAMPLE: 2%

MAJOR COMMAND DISTRIBUTION: AFSC 100%

LOCATION: CONUS 100%

DAFSC DISTRIBUTION: 31750 (62%); 31770 (38%

EXPRESSED JOB INTEREST: Very Interesting

PERCEIVED UTILIZATION OF TRAINING: Very Little

AVERAGE NUMBER OF TASKS PERFORMED: 105

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	15
O PERFORMING GENERAL REPAIR FUNCTIONS	12
Q INSPECTING, OPERATING, AND MAINTAINING AIRCRAFT INSTRUMENTATION SYSTEMS	11
H PREPARING FOR TEST PROJECTS AND OPERATION AND INSTALLING INSTRUMENTATION	9
V PERFORMING MISCELLANEOUS MISSION SUPPORT FUNCTIONS	7
J PERFORMING TEST, LAUNCH, OR SATELLITE OPERATIONS	7

FIVE REPRESENTATIVE TASKS:

Q564 PREFLIGHT AIRCRAFT INSTRUMENTATION PACKAGES
Q557 INSTALL OR REMOVE INSTRUMENTATION PACKAGES IN AIRCRAFT
Q553 ALIGN OR ADJUST AIRCRAFT INSTRUMENTATION PACKAGES
Q556 DEMODIFY AIRCRAFT AFTER TEST BED OPERATIONS
Q562 PERFORM IN-FLIGHT CALIBRATION OF AIRCRAFT INSTALLED INSTRUMENTATION PACKAGES

GROUP ID NUMBER AND TITLE: GRP105 - Ordnance and Guidance Test Specialist

PERCENT OF SAMPLE: 4%

MAJOR COMMAND DISTRIBUTION: AFLC 61% Other 3%
AFSC 36%

LOCATION: CONUS 100%

DAFSC DISTRIBUTION: 31730 (18%); 31750 (61%); 31770 (22%)

EXPRESSED JOB INTEREST: Fairly Interesting

PERCEIVED UTILIZATION OF TRAINING: Very Little

AVERAGE NUMBER OF TASKS PERFORMED: 77

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
H PREPARING FOR TEST PROJECTS AND OPERATION AND INSTALLING INSTRUMENTATION	19
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	19
O PERFORMING GENERAL REPAIR FUNCTIONS	13
S INSTALLING, CHECKING AND TESTING MUNITIONS OR ORDNANCE DEVICES	9
N CONSTRUCTING INSTRUMENTATION CIRCUITS OR DEVICES	5

FIVE REPRESENTATIVE TASKS:

S605 DETONATE OR TEST MUNITIONS OR ORDNANCE DEVICES
H193 DETERMINE OR RECOMMEND TESTING METHODS
J235 INFORM TEST DIRECTORS OF ABNORMAL INDICATIONS
S610 INSTRUMENT MUNITIONS OR ORDNANCE DEVICES
H219 RESEARCH TEST DIRECTIVES FOR TEST SPECIFICATIONS

GROUP ID NUMBER AND TITLE: GRP100 - Recording Instrumentation Specialist

PERCENT OF SAMPLE: 3%

MAJOR COMMAND DISTRIBUTION:

AFSC	71%	ATC	5%
AFLC	10%	Other	5%
SAC	9%		

LOCATION: CONUS 100%

DAFSC DISTRIBUTION: 31730 (29%); 31750 (67%); 31770 (4%)

EXPRESSED JOB INTEREST: Fairly Interesting

PERCEIVED UTILIZATION OF TRAINING: Fairly Well

AVERAGE NUMBER OF TASKS PERFORMED: 52

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	39
O PERFORMING GENERAL REPAIR FUNCTIONS	26
H PREPARING FOR TEST PROJECTS AND OPERATION AND INSTALLING INSTRUMENTATION	9
N CONSTRUCTING INSTRUMENTATION CIRCUITS OR DEVICES	5

FIVE REPRESENTATIVE TASKS:

P376 ALIGN, ADJUST, OR CALIBRATE INSTRUMENTATION AMPLIFIERS
P524 PERFORM OPERATIONAL CHECKS OF PEN AND INK RECORDERS
P520 PERFORM OPERATIONAL CHECKS OF LIGHT BEAM RECORDERS
H205 INSTALL OR REMOVE SENSORS OR TRANSDUCERS
L270 MONITOR DATA COLLECTING SYSTEMS SUCH AS OSCILLOGRAPHS DURING TESTS OR OPERATIONS

GROUP ID NUMBER AND TITLE: GRP297 - Test Range Communications Technician

PERCENT OF SAMPLE: 2%

MAJOR COMMAND DISTRIBUTION: AFSC 88% Other 6%
ADC 6%

LOCATION: CONUS 94%
Overseas 6%

DAFSC DISTRIBUTION: 31730 (12%); 31750 (76%); 31770 (12%)

EXPRESSED JOB INTEREST: Fairly Interesting

PERCEIVED UTILIZATION OF TRAINING: Quite Well

AVERAGE NUMBER OF TASKS PERFORMED: 75

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	44
O PERFORMING GENERAL REPAIR FUNCTIONS	30
F WORKING WITH FORMS, RECORDS, REPORTS, AND TECHNICAL DATA	6
G PERFORMING SUPPLY AND PROCUREMENT ACTIONS	4
A ORGANIZATION AND PLANNING	2

FIVE REPRESENTATIVE TASKS:

0374 TEST TRANSISTORS
P533 PERFORM OPERATIONAL CHECKS OF UHF RECEIVERS
P417 ALIGN OR ADJUST VHF RECEIVERS
P497 ISOLATE MALFUNCTIONS FOR UHF RECEIVERS
P397 ALIGN OR ADJUST POWER SUPPLIES

GROUP ID NUMBER AND TITLE: GRP410 - Satellite Recovery Specialist

PERCENT OF SAMPLE: Less than 1%

MAJOR COMMAND DISTRIBUTION: AFSC 100%

LOCATION: Overseas 100%

DAFSC DISTRIBUTION: 31750 (100%)

EXPRESSED JOB INTEREST: Fairly Interesting

PERCEIVED UTILIZATION OF TRAINING: Very Little

AVERAGE NUMBER OF TASKS PERFORMED: 85

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	45
O PERFORMING GENERAL REPAIR FUNCTIONS	24
F WORKING WITH FORMS, RECORDS, REPORTS, AND TECHNICAL DATA	8
T INSPECTING AND MAINTAINING ANTENNA SYSTEMS	5
G PERFORMING SUPPLY AND PROCUREMENT ACTIONS	3

FIVE REPRESENTATIVE TASKS:

P435 CALIBRATE OR ADJUST MAGNETIC DATA TAPE RECORDERS
0362 SOLDER OR DESOLDER ELECTRONIC COMPONENTS ON CIRCUIT BOARDS
0374 TEST TRANSISTORS
0351 REMOVE OR REPLACE CHASSIS OR CIRCUIT CARD ASSEMBLIES
P467 ISOLATE MALFUNCTIONS IN LIGHT BEAM RECORDERS

GROUP ID NUMBER AND TITLE: GRP201 - Satellite Components Mechanic

PERCENT OF SAMPLE: 7%

MAJOR COMMAND DISTRIBUTION: AFSC 89%
ADC 11%

LOCATION: CONUS 100%

DAFSC DISTRIBUTION: 31730 (7%); 31750 (76%); 31770 (17%)

EXPRESSED JOB INTEREST: Fairly Interesting

PERCEIVED UTILIZATION OF TRAINING: Fairly Well

AVERAGE NUMBER OF TASKS PERFORMED: 85

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	42
O PERFORMING GENERAL REPAIR FUNCTIONS	23
J PERFORMING TEST, LAUNCH, OR SATELLITE OPERATIONS	7
D TRAINING	4

FOUR REPRESENTATIVE TASKS:

J247 OPERATE GROUND STATIONS DURING ORBITAL VEHICLE PASSES
0374 TEST TRANSISTORS
0351 REMOVE OR REPLACE CHASSIS OR CIRCUIT CARD ASSEMBLIES
J236 ISOLATE EQUIPMENT MALFUNCTIONS DURING OPERATIONAL TESTS

GROUP ID NUMBER AND TITLE: GRP052 - Satellite Tracking Technician

PERCENT OF SAMPLE: 6%

MAJOR COMMAND DISTRIBUTION:

AFSC	86%
ADC	10%
AFCS	4%

LOCATION:

CONUS	91%
Overseas	9%

DAFSC DISTRIBUTION: 31750 (63%); 31770 (37%)

EXPRESSED JOB INTEREST: Fairly Interesting

PERCEIVED UTILIZATION OF TRAINING: Fairly Well

AVERAGE NUMBER OF TASKS PERFORMED: 70

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	31
O PERFORMING GENERAL REPAIR FUNCTIONS	14
T INSPECTING AND MAINTAINING ANTENNA SYSTEMS	12
J PERFORMING TEST, LAUNCH, OR SATELLITE OPERATIONS	9

FIVE REPRESENTATIVE TASKS:

J238 OPERATE AIRBORNE STATIONS DURING MISSILE LAUNCHES
P533 PERFORM OPERATIONAL CHECKS OF UHF RECEIVERS
J239 OPERATE AIRBORNE STATIONS DURING ORBITAL VEHICLE PASSES
T642 PERFORM OPERATIONAL CHECKS OF TRACKING SYSTEMS
0352 REMOVE OR REPLACE MAJOR ELECTRONIC BOXES, UNITS, DRAWERS, OR ASSEMBLIES

GROUP ID NUMBER AND TITLE: GRP039 - Supply and Procurement Specialist

PERCENT OF SAMPLE: 3%

MAJOR COMMAND DISTRIBUTION:

AFSC	73%	SAC	4%
AFLC	14%	USAFA	5%
ADC	4%		

LOCATION:

CONUS	88%
Overseas	12%

DAFSC DISTRIBUTION: 31730 (4%); 31750 (46%); 31770 (50%)

EXPRESSED JOB INTEREST: Fairly Interesting

PERCEIVED UTILIZATION OF TRAINING: Fairly Well

AVERAGE NUMBER OF TASKS PERFORMED: 52

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
G PERFORMING SUPPLY AND PROCUREMENT ACTIONS	35
F WORKING WITH FORMS, RECORDS, REPORTS, AND TECHNICAL DATA	15
O PERFORMING GENERAL REPAIR FUNCTIONS	10
V PERFORMING MISCELLANEOUS MISSION SUPPORT FUNCTIONS	6
N CONSTRUCTING INSTRUMENTATION CIRCUITS OR DEVICES	5

FIVE REPRESENTATIVE TASKS:

G171 INVENTORY SUPPLIES, EQUIPMENT, OR COMPONENTS
G170 INITIATE TEMPORARY ISSUE RECEIPT FORMS (AF FORM 1297)
G184 SCHEDULE TEST EQUIPMENT FOR PRECISION MEASUREMENT EQUIPMENT LABORATORY (PMEL) CALIBRATION
G165 COORDINATE WITH OTHER SECTIONS ON AVAILABLE SUPPLIES, EQUIPMENT, OR MATERIALS
G167 INITIATE CUSTODIAN REQUEST/RECEIPT FORMS (AF FORM 601b)

GROUP ID NUMBER AND TITLE: GRP117 - Laser Specialist

PERCENT OF SAMPLE: 1%

MAJOR COMMAND DISTRIBUTION: AFSC 100%

LOCATION: CONUS 100%

DAFSC DISTRIBUTION: 31730 (11%); 31750 (56%); 31770 (22%); 31790 (11%)

EXPRESSED JOB INTEREST: Very Interesting

PERCEIVED UTILIZATION OF TRAINING: Very Little

AVERAGE NUMBER OF TASKS PERFORMED: 82

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
R DESIGNING AND CONSTRUCTING LASER SYSTEMS	28
O PERFORMING GENERAL REPAIR FUNCTIONS	13
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	12
G PERFORMING SUPPLY AND PROCUREMENT ACTIONS	10
V PERFORMING MISCELLANEOUS MISSION SUPPORT FUNCTIONS	8

FIVE REPRESENTATIVE TASKS:

R602 PERFORM ALIGNMENT OF LASER CAVITIES
R600 OPERATE LASER POWER MEASUREMENT DEVICES
P523 PERFORM OPERATIONAL CHECKS OF OPTICAL SYSTEMS
R601 OPERATE LASER SPECTRUM ANALYSTS SYSTEMS
H222 SET UP GAS FLOW SYSTEMS

GROUP ID NUMBER AND TITLE: GRP045 - Missile Support Technician

PERCENT OF SAMPLE: 3%

MAJOR COMMAND DISTRIBUTION: SAC 96%
AFSC 4%

LOCATION: CONUS 100%

DAFSC DISTRIBUTION: 31750 (88%); 31770 (12%)

EXPRESSED JOB INTEREST: So-So to Extremely Dull

PERCEIVED UTILIZATION OF TRAINING: Very Little

AVERAGE NUMBER OF TASKS PERFORMED: 40

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
O PERFORMING GENERAL REPAIR FUNCTIONS	16
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	14
H PREPARING FOR TEST PROJECTS AND OPERATION AND INSTALLING INSTRUMENTATION	9
U INSPECTING AND MAINTAINING MISSILE INSTRUMENTATION SYSTEMS	9
I PERFORMING PREOPERATIONAL INSTRUMENTATION CHECKS	9

FIVE REPRESENTATIVE TASKS:

I230 PERFORM MISSILE PRE-LAUNCH CHECKS
H203 INSTALL OR REMOVE INSTRUMENTATION EQUIPMENT AT TEST SITES
P397 ALIGN OR ADJUST POWER SUPPLIES
I231 PERFORM PREFLIGHT SYSTEMS CHECKS
0357 REMOVE OR TREAT CORROSION ON SITE FACILITIES

GROUP ID NUMBER AND TITLE: GRP089 - Supervisor

PERCENT OF SAMPLE: 9%

MAJOR COMMAND DISTRIBUTION:

AFSC	74%	AFLC	1%
SAC	17%	TAC	2%
ADC	4%	Other	1%
AFCS	1%		

LOCATION:

CONUS	96%
Overseas	4%

DAFSC DISTRIBUTION: 31750 (8%); 31770 (61%); 31790 (31%)

EXPRESSED JOB INTEREST: Very Interesting

PERCEIVED UTILIZATION OF TRAINING: Quite Well

AVERAGE NUMBER OF TASKS PERFORMED: 89

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
A ORGANIZATION AND PLANNING	15
C EVALUATING	14
B DIRECTING AND IMPLEMENTING	13
F WORKING WITH FORMS, RECORDS, REPORTS, AND TECHNICAL DATA	12
E INSPECTING FOR CAPABILITY, QUALITY, OR ADHERENCE TO STANDARDS	9

FIVE REPRESENTATIVE TASKS:

F124	DRAFT CORRESPONDENCE OR REPORTS
B32	CONDUCT OR PARTICIPATE IN STAFF MEETINGS
B34	DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES
B33	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS
A20	PLAN OR SCHEDULE WORK ASSIGNMENTS

GROUP ID NUMBER AND TITLE: GRP071 - Training Specialist

PERCENT OF SAMPLE: 3%

MAJOR COMMAND DISTRIBUTION: ATC 87%
SAC 9%
AFSC 4%

LOCATION: CONUS 100%

DAFSC DISTRIBUTION: 31750 (43%); 31770 (52%); 31790 (5%)

EXPRESSED JOB INTEREST: Fairly Interesting

PERCEIVED UTILIZATION OF TRAINING: Quite Well

AVERAGE NUMBER OF TASKS PERFORMED: 60

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
D TRAINING	34
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	22
B DIRECTING AND IMPLEMENTING	9
F WORKING WITH FORMS, RECORDS, REPORTS, AND TECHNICAL DATA	8
O PERFORMING GENERAL REPAIR FUNCTIONS	5

FIVE REPRESENTATIVE TASKS:

D86 CONDUCT RESIDENT COURSE CLASSROOM TRAINING
D81 ADMINISTER OR SCORE TESTS
D99 PREPARE LESSON PLANS
D96 EVALUATE PROGRESS OF RESIDENT COURSE STUDENTS
D93 DEVELOP TESTS

GROUP ID NUMBER AND TITLE: GRP065 - Construction Equipment Operator

PERCENT OF SAMPLE: 2%

MAJOR COMMAND DISTRIBUTION: AFSC 100%

LOCATION: CONUS 100%

DAFSC DISTRIBUTION: 31750 (100%)

EXPRESSED JOB INTEREST: Fairly Interesting

PERCEIVED UTILIZATION OF TRAINING: Very Little

AVERAGE NUMBER OF TASKS PERFORMED: 21

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
V PERFORMING MISCELLANEOUS MISSION SUPPORT FUNCTIONS	34
O PERFORMING GENERAL REPAIR FUNCTIONS	18
H PREPARING FOR TEST PROJECTS AND OPERATION AND INSTALLING INSTRUMENTATION	13
G PERFORMING SUPPLY AND PROCUREMENT ACTIONS	8
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	7

FIVE REPRESENTATIVE TASKS:

V692 OPERATE FORKLIFTS
V699 OPERATE POWER HAND TOOLS
V691 OPERATE DRILL PRESSES
V693 OPERATE GRINDERS
V676 DIG OR FILL CABLE TRENCHES

GROUP ID NUMBER AND TITLE: GRP032 - Satellite Data Technician

PERCENT OF SAMPLE: 4%

MAJOR COMMAND DISTRIBUTION:

AFSC	80%	AFLC	3%
SAC	14%	ADC	3%

LOCATION: CONUS 100%

DAFSC DISTRIBUTION: 31730 (11%); 31750 (43%); 31770 (46%)

EXPRESSED JOB INTEREST: Very Interesting

PERCEIVED UTILIZATION OF TRAINING: Very Little to Fairly Well

AVERAGE NUMBER OF TASKS PERFORMED: 30

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
P INSPECTING AND MAINTAINING INSTALLED INSTRUMENTATION SYSTEMS	18
J PERFORMING TEST, LAUNCH, OR SATELLITE OPERATIONS	13
I PERFORMING PREOPERATIONAL INSTRUMENTATION CHECKS	13
L REDUCING AND ANALYZING TEST DATA	9
H PREPARING FOR TEST PROJECTS AND OPERATING AND INSTALLING INSTRUMENTATION	7

FIVE REPRESENTATIVE TASKS:

I233 PERFORM SATELLITE OPERATIONS PREPASS CHECKS
J247 OPERATE GROUND STATIONS DURING ORBITAL VEHICLE PASSES
J235 INFORM TEST DIRECTORS OF ABNORMAL INDICATIONS
K262 PERFORM SATELLITE POST OPERATIONS CHECKS
J236 ISOLATE EQUIPMENT MALFUNCTIONS DURING OPERATIONAL TESTS

GROUP ID NUMBER AND TITLE: GRP185 - Maintenance Control Specialist

PERCENT OF SAMPLE: Less than 1%

MAJOR COMMAND DISTRIBUTION: AFSC 60%
SAC 40%

LOCATION: CONUS 100%

DAFSC DISTRIBUTION: 31750 (100%)

EXPRESSED JOB INTEREST: Fairly Interesting

PERCEIVED UTILIZATION OF TRAINING: Very Little to Fairly Well

AVERAGE NUMBER OF TASKS PERFORMED: 36

TIME SPENT ON DUTIES:

DUTY	AVERAGE PERCENT TIME SPENT BY ALL MEMBERS
A ORGANIZATION AND PLANNING	32
F WORKING WITH FORMS, RECORDS, REPORTS, AND TECHNICAL DATA	28
B DIRECTING AND IMPLEMENTING	11
G PERFORMING SUPPLY AND PROCUREMENT ACTIONS	10
C EVALUATING	9

FIVE REPRESENTATIVE TASKS:

F141 MAINTAIN STATUS BOARDS OR CHARTS
A8 COORDINATE WORK ACTIVITIES WITH MAINTENANCE CONTROL
A4 COORDINATE MAINTENANCE SCHEDULING WITH JOB CONTROL
C54 ANALYZE WORK LOAD REQUIREMENTS
A18 PLAN OR PREPARE BRIEFINGS